# **GERMAN FINANCIAL COOPERATION ARMENIA**

Project: "Establishment of Protected Areas in Armenia's Javakheti Region"

# Annex 1: Tender dossier for limited competitive bidding

# For implementation of

Reconstruction works of existing potable water supply systems and constructions, construction of new potable water supply systems of the communities of the:

Akhuryan River Water Catchment (Lot 1) and Lake Arpi Water Catchment (Lot 2)

# Introduction

Within the scope of the financial cooperation between Armenia and Germany the "Ecoregional Nature Protection Programme for the Southern Caucasus" is carried out. As a part of the programme the project of Establishment of Protected Areas in Armenia's Javakheti Region (BMZ 2003 65 411) is carried out by the Ministry of Nature Protection of Armenia and World Wide Fund for Nature (WWF) Armenian Branch (Consultant of the project). The project is financed by the Federal Ministry for Economic Cooperation and Development (BMZ) through KfW Development Bank.

Within the project it is provided rehabilitation of the potable water supply systems of the Lake Arpi National Park's Support Zone Communities, allocated in Ashotsk and Amasia regions of the Shirak province.

Ministry of Nature Protection of Armenia, represented by the WWF Armenia, (hereafter referred to as the Employer, hereby invites you (hereafter referred to as Bidder) to submit your offer (hereafter referred to as a Bid) for execution and commissioning of the rehabilitation works.

The rehabilitations works' components are the following:

- Reconstruction of existing potable water supply systems and constructions;
- Construction of new potable water supply systems and constructions;
- Balancing and commissioning;

Rehabilitation works are consist of two lots:

LOT 1: Akhuryan river water catchment: LOT 2: Lake Arpi water catchment:

Ardenis Shaghik
Aghvorik Garnarich
Alvar Tsaghkut
Sizavet Zorakert
Mets Sepasar Zarishat

Krasar

The time for completion shall be 4 months, beginning from the date of contract signing by the last Party. The bidding procedure shall be conducted under the KfW Guidelines for Procurement of Goods, Works and associated Services in Financial Cooperation with Partner Countries, May 2007 – last update in September 2013 -, which can be downloaded from the following web page:

https://www.kfw-entwicklungsbank.de/Download-Center/PDF-Dokumente-Richtlinien/Vergabe-E.pdf

The invited organizations Bidders are requested to submit their Bids for implementation of herein specified rehabilitation works free of cost and without obligation for the Employer. All costs for the preparation of the Bid shall be borne by Bidder.

Additional claims related to the given works and services are excluded. Misunderstandings or misinterpretations of the Bidding documents and errors in the preparation of the Bid shall be borne by Bidder.

The Bids submitted after the deadline prescribed in the Letter of Invitation will not be considered.

The adherence to the project deadlines is of the essence and must be strictly observed.

# Section 1 Instruction to the Bidders (ITB)

# 1. Preparation of Bids

- 1.1 Potential Bidders are requested to submit concise, clear, and substantial documents and to adhere to the above structure.
- 1.2 Non-compliance with this invitation or faulty information shall lead to exclusion from the Bidding process.
- 1.3 Bidders are free to associate themselves with other firms to ensure that all required know-how and experience are available to them.
- 1.4 Eligible Bidders will be selected by the procedure of Limited Competitive Bidding (with the elements of the Price Quotation), in line with KfW Guidelines for Procurement of Goods, Works Contracts under Financial Cooperation with Partner Countries, using a two envelope system. Eligible bidders have, even in case they apply for all of the Lots, to submit for each Lot a separate envelope with the documents requested under Instruction to the Bidders 1.9
- 1.5 The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Employer, shall be written in Armenian Language. Lang Supporting documents and printed literature that are part of the Bid should be in the same language.
- 1.6 Bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a Letter of Intent to execute a Joint Venture Agreement in the event of a successful Bid shall be signed by all members and submitted with the bid, together with a copy of the proposed agreement
- 1.7 To establish its qualifications to perform the Contract in accordance with Qualification Criteria (Section 2.1 to 2.6) the Bidder shall provide the information requested in the corresponding information sheets included in Section 2 as well as Section 3 (Qualification Forms).
- 1.8 The Applicant shall submit the Bid in form of a double envelope system. The "Inner" Envelope shall be submitted for each Lot separately, so in order to guarantee comparability.
- 1.9 **The "Outer" Envelope shall contain** documentary evidence establishing the Bidders qualification, as specified in (Section 2.1 to 2.6) by submission of the following duly completed forms as included in Section 2 and Section 3 (Qualification Forms). In case bidders apply for both Lots, they have to submit for each Lot a separate "Outer" envelope with the documents requested below:

# **Section 2-Evaluation and Qualification Criteria Documents**

- 2.1 Administrative Compliance Grid;
- 2.2 Financial Data;
- 2.3 Experience:
- 2.4 Licenses and Certificates:
- 2.5 Data on Availability and Qualified Labour Resources, necessary for the implementation of the contract
- 2.6 Data on Material and Technical Resources;

#### **Section 3 - Qualification Forms**

Section 3.1 Application Submission Sheet

Section 3.2 Declaration of Undertaking

Section 3.3 Copy of Joint Venture Agreement entered into by all

members, as specified in Article 1.6 Instructions to Bidders

1.10 **The "Inner" Envelope shall contain** the following documents in form as given in Section 4 - Biddings Forms. The "Inner "Envelope shall be prepared for all Lots ( Lot 1 and Lot 2 ) to which bidder is applying separately.

# Section 4 - Bidding Forms

Section 4.1 Form of Bid

Section 4.2 Bill of Quantities

Section 4.3 Schedule of Implementation,

- 1.11 Only bidders which can meet the requirements for Qualification, as detailed in Section 2 and 3 shall be eligible for evaluation of the Inner Envelope.
- 1.12 The Form of Bid including the Bill of Quantities, shall be prepared using the relevant forms furnished in Section 4 (Bidding Forms) and in Section 5 (Employer's Requirements). The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.
- 1.13 The Bid validity period shall be 90 days.
- 1.14 In exceptional circumstances, prior to the expiration of the Bid validity period, the Employer may request Bidders to extend the period of validity of their bids. The request and the responses shall be made in writing.
- 1.15 The prices and discounts quoted by the Bidder in the Form of Bid and in the Bill of Quantities shall conform to the requirements specified at Section 4 Bidding Forms.
- 1.16 The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.
- 1.17 The price to be quoted in the Form of Bid shall be the total price of the Bid, excluding any discounts offered. Such possible discounts have to be mentioned separately.
- 1.18 The prices quoted by the Bidder shall be fixed prices (price adjustment shall not be allowed)
- 1.19 The taxes and VAT payable in Armenia, import duties and other possible charges shall be priced separately in the BOQ and in Form of Bid.
- 1.20 The unit rates and the prices shall be quoted by the bidder entirely in: AMD

# 2. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting

- 2.1 The Bidder is advised to visit and examine the site of works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Bid and entering into a Contract for construction Works. The costs of visiting the site shall be at the Bidder's own expense
- 2.2 A prospective Bidder requiring any clarification of the Bidding Document shall raise his inquiries during the information meeting. The purpose of the information meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage
- 2.3 Nonattendance at the information meeting will not be a cause for disqualification of a Bidder
- 2.4 Information meeting will be held on 18<sup>th</sup> of July, 2014 at 11:00 in local time
- 2.5 At any time prior to the deadline for submission of bids, the Employer may amend the Bidding Document by issuing addenda.
- 2.6 Any addendum issued shall be part of the Bidding Document and shall be communicated in writing to all who have obtained the Bidding Document from the Employer.
- 2.7 To give prospective Bidders reasonable time in which to take an addendum, issued by the Employer, into account in preparing their bids, the Employer may, at its discretion, extend the deadline for the submission of bids, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.
- 2.8 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Document. Failure to furnish all information or documentation required by the Bidding Document may result in the rejection of the bid.

# 3. Submission and Opening of the Bids

- 3.1 The Bidder shall prepare one original of the documents comprising the bid and clearly mark it as "ORIGINAL". In addition, the Bidder shall submit 2 (two) copies of the Bid clearly mark them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.
- 3.2 The envelops and original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in below shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature.
- a. In case of a single entity the written confirmation of authorization to sign on behalf of the Bidder shall consist of a Power of Attorney, where authorized person is indicated.
- b. In case of a JV the written confirmation of authorization to sign on behalf of the Bidder shall consist of a Power of Authorization signed by all JV members. Also for the signatory of each JV member or specialized Subcontractor a Power of Attorney shall be furnished.
- 3.3 On the Outer envelope it shall be marked:
  - i. the name of the Employer and address of Bid submission;
  - ii. LCB reference number and the Lot's number or Lots' numbers for which the Bidder is applying;
  - iii. the warning "do not open until the opening session";
  - iv. the name, location and telephone number of the Bidder.

In case the Bidder applies for both lots, there have to be TWO Inner Envelopes instead of one. On the Inner envelope(s) it shall be marked:

- i. the name of the Employer and address of Bid submission;
- ii. LCB reference number and the Lot's number for which the Bidder is applying;
- iii. the warning "do not open until the opening session of the Inner Envelopes";
- iv. the name, location and telephone number of the Bidder.
- 3.4 If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the bid.
- 3.5 The documents original and two copies shall be submitted to:

**WWF Armenian Branch** 

11, Proshyan str.

0019 Yerevan, Armenia

no later than the deadline for Bid submission which is:

Date: 29<sup>th</sup> of July, 2014

Time: 12:00 in local time (10:00 CET)

#### No electronic submission of Bids (including fax transmission) shall be allowed!

- 3.6 The Employer shall not consider any Bid that arrives after the deadline for submission of bids. Any Bid received by the Employer after the deadline for submission of Bids shall be declared late, rejected, and returned unopened to the Bidder.
- 3.7 A Bidder may withdraw its Bid after it has been submitted by sending a written notice, duly signed by an authorized representative. Such notice must be presented in envelope prepared as stipulated above and clearly marked "WITHDRAWAL". Such notices must be received by the Employer prior to the deadline prescribed for submission of bids.
- 3.8 Bids requested to be withdrawn shall be returned unopened to the Bidders.
- 3.9 The session for opening of the Outer Envelopes will take place at will take place at Employers' address mentioned above at:

Date: 29th of July, 2014

Time: 12:00 in local time (10:00 CET)

3.10 The session for opening the Inner Envelopes will take place at Employers' address mentioned above at:

Date: 30<sup>th</sup> of July, 2014

Time: 12:00 in local time (10:00 CET)

3.11 The Bids will be opened at the place and time specified in the bidding documents and by the Evaluation Committee appointed for this purpose in composition of representatives of the RA Ministry of Nature Protection, Regional Authorities, WWF Armenia, WWF Germany and Lake Arpi National Park SNCO.

# 4. Evaluation and Comparison of Bids

- 4.1 The Evaluation Committee will evaluate and examine each bidder, according the qualification criteria set in the Section 2. Only bidders which can meet the requirements for Qualification, as detailed in Section 2 shall be eligible for evaluation of the Inner Envelope.
- 4.2 The evaluation and comparison procedure is confidential.
- 4.3 After the opening of the Bids, no information relating to the examination, clarification, evaluation and comparison of the Bids or recommendations concerning the award of the Contract can be disclosed until the Contract has been awarded.
- 4.4 An attempt by a Bidder to influence the evaluation committee in the process of examination, clarification, evaluation, and comparison of the bids, to obtain information on how the procedure is progressing or to influence on its decision concerning the award of the Contract will be result in immediate rejection of the bid.
- 4.5 No liability can be accepted for late delivery of the Bids. Late Bids will be rejected and will not be evaluated.
- 4.6 To assist in the examination, evaluation, and comparison of the bids, and qualification of the Bidders, the Employer may, at its discretion, ask any Bidder for a clarification of its bid. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the bids.
- 4.7 If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its Bid may be rejected.
- 4.8 A substantially responsive Bid is one that meets the qualification requirements of the Bidding Document without material deviation, reservation, or omission.
- 4.9 The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all Bids at any time prior to Contract award, without thereby incurring any liability to Bidders. In case of annulment, all Bids submitted, and specifically, Bid securities, shall be promptly returned to the Bidders.

### 5. Award of Contract

- 5.1 Subject to KfW's positive vote, the Employer shall award the Contract to the Bidder who is determined to be qualified to perform the Contract satisfactorily and whose commercial offer has been determined as the lowest. The committee decision about the contract award will be communicated to the successful Bidder not later than 6<sup>th</sup> of August, 2014. The Employer foresees to award the contract not later than 8<sup>th</sup> of August 2014.
  - Within the terms mentioned in para above, Employer shall notify successful Bidder in writing about contract award, submitting the offer to sign a contract ("Letter of Acceptance") and a draft Contract Agreement. The successful Bidder shall sign the Contract Agreement and return to the Employer within two working days.
- 5.2 Within 14 (fourteen) days upon signing the Contract Agreement, the successful Bidder shall furnish the Advance Payment Security (if applicable) and Contract Performance Security in accordance with the conditions of Contract, using for that purpose the forms included in Section 8 (Contract Forms, Form 8.3 and 8.4).
- 5.3 The amount of Contract Performance Security forms ten percent of the contract price in the form of the bank/insurance company's warranty (Section 8, Form 8.4) in the amount of equal to ten (10) percent of the Contract price up to the Preliminary Acceptance of the works and then should be reduced to an amount of 2.5% of the Contract Price.

- 5.4 In accordance with the Contract Agreement the Employer estimates to provide twenty (20) percent advance payment. The awarded Bidder may resign the advance payment or propose to reduce the amount of the advance payment.
- 5.5 In case if the Contract Agreement provides advance payment the awarded Bidder shall furnish the Advance Payment Security in the form of the bank warranty in the amount of equal to the advance payment (Section 8, Form 8.3). The order of the advance payment clearing-off shall be stipulated by the Contract Agreement.

# Section 2 Evaluation and Qualification Criteria

# **General Remarks:**

The Bidder shall meet the minimum requirements of the qualification Criteria as set out in this Section 2 - Section 2.1 to 2.6, in order to be eligible for further technical and financial evaluation.

All of the criteria mentioned in Section 2.1 to 26 have to be fulfilled respectively all documents to be included.

The Qualification Criteria set out in Section 2.1 to 2.6 are:

- 2.1 Administrative Compliance Grid;
- 2.2 Financial Data;
- 2.3 Experience;
- 2.4 Licenses and Certificates;
- 2.5 Data on Availability of Qualified Labour Resources, necessary for the implementation of the contract
- 2.6 Data on Material and Technical Resources;

# **Section 2.1 Administrative Compliance Grid**

Item N.	Reference Clause (Instruction to Bidders ITB)	Administrative Compliance Criteria
2. 1.1	ITB Clause 3.5	Timely Submission
2.1.2	ITB Clause 3.1 – 3.5	Sealed and intact package, duly marked
2.1.3	ITB 3.2	Written confirmation authorizing the signatory (Power of Attorney)
2.1.4	ITB Clause 3.1	One original and 2 Copies of the Bid
2.1.5	ITB Clause 1.5	Bid Submitted in Armenian
2.1.6	Application Submission Sheet	Duly completed and signed
2.1.7	Declaration of Undertaking	Duly signed
2.1.8	ITB Clause 1.6	Letter of Intent to form JV agreement or JV Agreement attached (if applicable)

#### Section 2.2 Financial Data

The bidder must meet the following financial criteria:

Minimum average annual turnover in amount twice higher than the amount indicated in bidder's bids, calculated as total certified payments received for contracts in progress or completed, within the last three (3) years. In case if the bidder applies for both lots, then his turnover must be twice higher then the amount of both bids.

The Bidder shall submit the certified statement of financial capacity of bidders showing the necessary turnover to handle this project covering the last three years, such as balance sheet and annual tax statement.

#### Section 2.3 Experience

Bidder shall have duly implemented similar works (executed contracts) within the year and three years preceding the submission of the bid.

The Bidder shall present a list of constructions, he/she has carried out during recent 3 years. (2011, 2012, 2013 years.) according to the table below (Experience Form 2.3), including ongoing and outstanding contruction sites, which were started in 2013 and were completed in 2014 or are still under construction. The similarity shall be based on the physical size, complexity, methods/technology or other characteristics as described in Section 5, Employer's Requirements (ERQ).

Form 2.3 Experience

	PREVIOUSLY IMPLEMENTED CONTRACTS								
#	Name of the site	Name of contracting organization	Contract amount AMD						
				Inception (date, month, year)	Completion date, month, year)	Inception (date, month, year)	Completion date, month, year)		
1	2	3	4	5	6	7	8		

An Bidder shall provide documents confirming presented information, namely:

- copies of contracts on construction sites;
- certificate of acceptance endorsed by the contractual parties verifying the implementation of the contract(s) or a written statement of the contractual party that has accepted the implementation of such contract(s)

For those construction sites, presented in the table 2.3, where contract completion date (column 6) does not coincide with the actual completion date (column 8) relevant documents on delay of works shall be presented.

#### Section 2.4 Licenses and Certificates

Bidder must submit copies of the following licenses and certificates:

- 1. Licenses for the implementation of water engineering and construction works issued on the name of organization by the RA Ministry of Urban Development.
- 2. Certificate from the competent authority verifying that Bidder has not been declared bankrupt through the court
- 3. Certificate from of corresponding tax inspection verifying that the Bidder has no overdue tax or compulsory social security debts to the RA tax office
- 4. Certificate of the State Register of Legal Entities

# Section 2.5 Data on availability of qualified labour resources necessary for implementation of the contract.

The Bidder shall submit information on qualification of the basic engineering/technical staff presently hired by him/her and available during the whole period of implementation of the works to be conducted. Bidder shall present together with the documents listed below copies of employment contracts or letter of intent which confirms readiness and availability of basic engineering/technical staff to work with the bidder during the whole period of implementation of the Contract.

Form 2.5 Available Labour Resources

N	Name, surname , father's name of a candidate	Occupation	Number of years working according to the occupation	Comments, whether the candidate is part time employee, or staff member
1			-	

CVs of the candidates shall be attached to the Form 2.5.

The candidates shall have high education of relevant profile and documents verifying their qualification (diploma, certificate, etc) shall be presented along with the above documents.

While submitting documentation, applicants shall take account of the fact that, information about the accessibility and availability of personnel is one of the criteria of Bids assessment. Therefore, it is in applicant's interests to submit comprehensive information, particularly concerning the work experience and qualification of the specified candidates.

### Section 2.6 Data on Material and Technical Resources.

The Bidder shall present information on material and technical resources available to him/her. In addition to construction technical equipment and machinery in his/her ownership an applicant can also present a list of the equipment rented or leased, and in case of intention of outsourcing of specific construction works – also data on material and technical resources of subcontractor companies.

A list of construction equipment and machinery owned by a Bidder shall be presented according to the table 2.6.1

**Table 2.6.1** 

Title	Model	Production year	Registry Number

Both large and small size technical construction equipment shall be presented in the table 2.6.1.

Table 2.6.1. shall be accompanied by documents, confirming ownership of construction equipment and machinery, such as: copies of technical passports, inventory deeds and asset / liability statement (all items indicated in the table 2.6.1. shall be reflected in these documents).

Construction equipment and machinery leased, or to be leased in the future shall be presented according to the table 2.6.2

**Table 2.6.2** 

Title	Model	Production year	Registry Number	Title of the lessor or lessor organization

Table 2.6.2. shall be accompanied by the following document, confirming the information:

- copies of technical passports, indicated in the table 2.6.2 (issued on the name of lessor organizations);
- copies of documents, verifying the ownership or the right for temporary use of this equipment and machinery (right of temporary use shall be valid till the end of timeline of the construction presented by the Bid;

Otherwise, copies of agreements expressing readiness to prolong the above mentioned right shall be additionally presented in case if an Bidder wins the contract).

In case the Bidder intends to outsource any specific construction work or group of works, a list of relevant construction equipment and machinery owned by a subcontractor shall be presented according to the table 2.6.3

**Table 2.6.3** 

Title of a subcontractor organization	Title of work to be outsourced	Title of equipment	Model	Production year	Registration Number
Subcontractor 1 title					
Subcontractor 2 title					

The table shall reflect the information on material and technical resources of an intended subcontractor, which is needed to perform works to be outsourced.

The following documents, confirming the information shall be attached to the table 2.6.3

- Copies of preliminary agreements between the Bidder and a subcontractor organization, on readiness to conclude a subcontract regarding works, defined in the table 2.6.3 according to timeline, as provided in the Bid in case the Bidder wins the Bidding. .
- Copies of inventory deeds and asset / liability statement of all subcontractors (all items indicated in the table 2.6.3 for all subcontractors shall be reflected in these documents).
- Copies of technical passports indicated in the table 2.6.3 (issued on the name of a subcontractor)

The Bidder participating in the Bidding shall meet the minimum requirements for material and technical resources.

The minimum required package of construction equipment and machinery comprises the following:

No	Equipment/Machinery Type and Characteristics	Minimum Number required
1	Excavator with reverse bucket V=0.5÷0.75 m3	2
2	Dump truck with loading capacity of 10 ton	2
3	Bulldozer	1
4	Loader (Boom length at least 16 m with loading capacity of 6 ton)	1
5	Pneumatic jack hammer	1
6	Concrete truck V=3.0m3	1
7	Portable electric welding equipment (metal structure and steel pipes)	1
8	Portable electric welding equipment (polyethylene pipes)	1
9	Pipe transportation machine	1
10	Scoop loader	2
11	Deep vibrator	1

# Section 3 – Qualification Forms (QLF)

# **Section 3.1 Application Submission Sheet**

			Date: LCB No.:			
То:						
We,	the undersigned, apply to be qualified	ed for the referenced	CB and decla	re the following	ng.	
(a)	We have examined and have no re-	servations to the Qua	alification Docu	ıment and co	nditions.	
(b)	We, including any subcontractors qualification, do not have any confli		any part of th	e contract(s)	resulting from	this
(c)	We, including any subcontractors qualification, have not been declare by the UN Security Council have be	ed ineligible by KfW				
(d)	We are not a Government-owned e	ntity				
(e)	We, plan to subcontract the following	ig key activities:				
(f)	We declare that the following com- respect to the qualification process:		or fees have I	peen paid or	are to be paid v	vith
	Name of Recipient	Address	Reason		Amount	
(g)		e paid, indicate "none el the bidding process	e.") s at any time a	 and that you a	are not bound eit	hei
Nan	ne					
In th	e capacity of					
Sigr	ned					
Duly	authorized to sign the Application for	or and on behalf of				
Date	·					

Earle / lip i realistat i ance support Zerie communico. Morti / 5/11/2/2017 / 6/1
Section 3.2 Declaration of Undertaking
Date:
LCB No.:
Declaration of Undertaking
We underscore the importance of a free, fair and competitive procurement process that precludes abusive practices. In this respect we have neither offered nor granted directly or indirectly any inadmissible advantages to any public servant or other person nor accepted such advantages in connection with our bid, nor will we offer or grant or accept any such incentives or conditions in the present procurement process or in the event that we are awarded the contract, in the subsequent execution of the contract. We also declare that no conflict of interest exists in the meaning of the kind described in the pertinent Guidelines1.
We also underscore the importance of adhering to minimum social standards ("Core Labour Standards") in the implementation of the project. We undertake to comply with the Core Labour Standards ratified by the Republic of Armenia.
We will inform our staff about their respective obligations and about their obligation to fulfil this declaration of undertaking and to obey the laws of the Republic of Armenia.
We also declare that our company/all members of the consortium has/have not been included in the list of sanctions of the United Nations, nor of the EU, nor of the German Government, nor in any other list of sanctions and affirm that our company/all members of the consortium will immediately inform the client and KfW if this situation should occur at a later stage.
We acknowledge that, in the event that our company (or a member of the consortium) is added to a list of sanctions that is legally binding for the client and/or KfW, the client is entitled to exclude our company/the consortium from the procurement procedure and, if the contract is awarded to our company/the consortium to terminate the contract immediately if the statements made in the Declaration of Undertaking were objectively false or the reason for exclusion occurs after the Declaration of Undertaking has been issued.
Authorized and binding signature:
Name and function of the signatory:
Name of the Bidder:
Address:
Date of signing:/

<sup>&</sup>lt;sup>1</sup> See "Guidelines for the Assignment of Consultants in German Financial Cooperation" and "Guidelines for the Procurement of Goods, Works and Associated Services in Financial Cooperation with Partner Countries, May 2007, last updated September 2013" published by KfW Bankengruppe

# **Section 3.3 Copy of Joint Venture Agreement**

As per Article 1.6 of the Instructions to Bidders.

# Section 4 - Bidding Forms

4.1 Form of Bid (Commercial Offer Form)		
	LCB No.:	ofpages
Го:		
We offer to execute in conformity with the Bidding Documents th	e following	Services:
'Rehabilitation of the potable water supply systems of the Communities"	Lake Arpi	National Park's Support Zone
By studying the Bidding Documents the total price of our Bid as	offered bel	ow is:
Amount in numbers in AMD (Amount in words in AMD) whwords in AMD)	nere the V	AT,AMD (amount in

	Proposed total price					
The object of purchase	exclusive VAT (AMD)	VAT (AMD)	Total (AMD)			
The object of purchase	the letters and numbers	the letters and numbers	the letters and numbers			
1	2	3	<i>4</i> =2+3			

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents
- (b) We have collected the needed information on conditions of supply and studied all other circumstances that may influence the contract execution
- (c) We have studied the potential of our sub-contractors
- (d) The Bid shall be valid for a period of 90 days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (e) If our Bid is accepted, we commit to obtain an Advance Payment and Performance Securities in accordance with the Bidding Documents;
- (f) We, including any subcontractors or Contractors for any part of the contract, do not have any conflict of interest;
- (g) We are not participating, as a Bidder or as a subcontractor, in more than one Bid in this bidding process;
- (h) Our firm, its affiliates or subsidiaries, including any Subcontractors or Contractors for any part of the contract, has not been declared ineligible under the RA laws or official regulations or by an act of compliance with a decision of the United Nations Security Council;
- (i) We are not a Government owned entity.
- (j) We understand that this Bid, together with your written acceptance thereof included in your Notification of Award, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- (k) We accept further that the Employer reserves the right to reduce or amend the content of the Bidding Documents and that you are not bound to accept the lowest evaluated bid.
- (I) In case of our Bid being accepted, we shall not make any requests regarding the change of the offered price for the said works.

(m) The advance payment is <sup>2</sup> : AMD	()	which	is 20	percent	of	our	Contract
Price.							

Authorized and binding signature:
Name and function of the signatory:
Name of the Bidder:
Address:
Date of signing:/

Do not fill if the advance payment is not requested

#### **Section 4.2 Bill of Quantities**

# Preamble, instructions, and recommendations for filling the BOQ

The Bidder needs to complete all columns of the BOQ, which is the unit price, the net price and also, the columns for VAT.

BOQ should be elaborated based on Works presented in Section 5.

# Section 4.3 Schedule of Implementation

Works of Lot 1 and Lot 2 shall be completed in four (4) months after the date of the Contract signing of the contract by the last Party.

Detailed implementation plan shall be included into the Bidder's bid, in the following form:

**Table 4.3.1** 

No.	Title of works	Place (Community)	Personnel Involved	Equipment Involved	Quantity (AMD)	Start	End
1							
2							
3							
4							
5							
	Total						

# Section 5. Employer's Requirements (Terms of Reference)

\*Note: Applicants can apply for all the lots together and separately. In case applicants apply for all Lots, they still do have to submit one offer for each of the Lots separately.

The detailed drawings as well as Bill of Quantities of the works to be provided are given in separate files in ANNEX 2 and ANNEX 3 and they are the constituent part of this Bidding Document.

All works must be carried out according to the drawings to the ANNEX 2 and ANNEX 3..

#### Information about the Country (Project Area)

# Country

The Republic of Armenia is a landlocked mountainous country in the Caucasus region of Eurasia. Situated at the juncture of Western Asia and Eastern Europe it is bordered by Turkey to the west, Georgia to the north, the de facto independent Nagorno-Karabakh Republic and Azerbaijan to the east, and Iran and the Azerbaijani exclave of Nakhchivan to the south.

Armenia is divided into ten provinces, with the city of Yerevan having special administrative status as the country's capital.

The official language in Armenia is Armenian; the other used language is Russian.

#### Project area

Project is allocated in the Amasia and Ashotsq regions of the Shirak Province (northwest Armenia). It is located about 160 km from the capital Yerevan and near to the Turkish and Georgian boarders.

The region is located on a high mountain plateau. Geographically, it represents the northernmost part of the mountain plateaus of the Near East. To the North and West it is bordered by the slopes of the Eghnakhagh Ridge, to the East by the Javakheti Ridges and to the South it gradually connects with the Yerevan Plateau.

#### **Climatic and Geological Conditions**

The region typified by a harsh, predominantly continental climate, considered extreme and inhospitable. Average temperature in mid-July is recorded at 15°C for the central part of the region. Mean temperature ranges from -13°C in January to +13°C in July with an annual average of +1°C. There are 210 days annually with a daily temperature above Zero Centigrade. The vegetation period averages 160 days. Approximately 2,400 hours of sunshine per year are recorded for the area. Winds are pronounced in spring and fall.

Geologically, the plateau is composed of volcanic rock materials originating from the Miocene, Upper Pliocene and the Pleistocene. Elevations range from 1500 to 3042m. The Plateau is composed of a flat table and softly undulating terrain. Except for the Ardenis Pond (surface area of approximately 10 ha), Lake Arpi with a total surface area of approximately 3,100 ha is the only lake found in the Armenian Section of the Plateau. Wetlands characterize the Akhuryan drainage system to the South of the Plateau. The Lakes were formed as a result of volcanic activity.

Soils vary with elevation, slope, and edaphic conditions. The higher reaches of the Akhdag and Javakheti mountain ranges are characterized by mountain meadow soils, turning into meadow brown semi-desert soils at the foothills. The larger part of the Lake Arpi Plateau is covered by chernozems, interspersed with meadow-swamp soils found mostly in depressions and along the old Akhuryan Riverbed.

The geographical coordinates of the Shirak province are 40°56′48″N 43°46′53″E

**Table 1: Climatic and Geological Conditions** 

No	No. Description		Requirements
NO.			Data
1.	Altitude of the site above sea level (highest point)	m	2440
2.	Degree of pollution		Low
3.	Earthquake magnitude	MSK	9
4.	Soil frost level	Cm	104
5.	Velocity of wind	m/s	26
6.	Minimum Temperature	°C	-33
7.	Maximum Temperature	°C	+17
8.	Snow load	kg/m²	50
9.	Average annual rainfall	mm	550

## Hydrology

The Javakheti Plateau is widely considered to be one of the most important water catchment and water supply areas of Armenia, providing potable water to the city of Gyumri and numerous other communities, and irrigation water to downstream users.

All communities have a central water supply system with potable water mostly originating from springs. All water is gravity-fed. All water is distributed by pipes – mostly underground - because of severe winter frost. Much of the existing pipe systems are in urgent need of repair. Water distribution inside communities is poorly developed. Many households are not hooked into the community system and depend on pumps and outlets located in public places inside or close to the village.

### **Project Organisation**

#### **Construction / Erection**

The construction and erection work shall be supervised by professional site managers with extensive skills and experience in the related work. They have to see for the orderly performance of the work according to the technical documents.

Since the project concerns rehabilitation works at the potable water supply systems under operation, a complete shutdown of the whole systems is not possible. The necessary shutdowns have to be applied and discussed in advance with The Employer / The Employer's Representative and administrations of corresponding communities.

#### Commissioning

Prior to commissioning tests a functional tests are to be performed for synchronisation of newly installed systems with existing systems.

The commissioning tests shall be carried out by the Contractor in presence of The Employer/The Employer's Representative and administration of corresponding community. The costs resulting there from are to be borne by the Contractor.

#### **Standards and Calculations**

#### **Standards**

All technical regulations of the Employer shall be obeyed.

All works have to be executed in compliance with the guidelines of the valid SNIP/GOST standards.

In cases where components are subject to national and international standards, both standards shall not be contradictory.

In contradictory, unclear cases etc. the SNIP/GOST standards shall prevail.

Furthermore all works has to be in conformity with the state-of-the-art; and the Armenian relevant local standards.

Any other standard as proposed by the Contractor can be considered only upon revision by the Employer provided that the standards are written or translated into English.

#### **Material Standards**

Materials shall be new and of first-class quality, suitable for the purpose, free from defects and imperfections, and of the classifications and grades in conformity to the latest issue of the respective ISO and EN. Material according to other standards may be used after provided the Employer acceptance; these standards shall ensure an equivalent or higher quality. In this case, the submission of equivalence/differences tables between the proposed Standards and the above Standards is required.

#### **Units of Measurement**

All units shall be indicated in the TM System (Technical Metric System).

In all documents, such as correspondence, technical schedules, and drawings, metric units of measurements shall be employed. On drawings or printed pamphlets where other units have been used, the metric equivalent shall be marked in addition.

#### **Terms of Reference**

Rehabilitation works are provided in the communities of the Lake Arpi and Akhuryan river water catchments as follows:

Akhuryan river water catchment: Lake Arpi water catchment:

Ardenis Shaghik
Aghvorik Garnarich
Alvar Tsaghkut
Sizavet Zorakert
Mets Sepasar Zarishat

Krasar

#### **LOT 1. AKHURYAN RIVER WATER CATCHMENT**

#### 1. GENERAL INFORMATION: CURRENT SITUATION

#### 1.1 Basis for the design; baseline materials and documents

The following have served as grounds for reconstruction and construction of water supply networks and facilities of Aghvorik, Sizavet, Ardenis, Mets Sepasar, Alvar and Krasar communities included in the scope of Design:

- 1 Design task assigned by the Client the World Wide Fund For Nature, Armenian Branch;
- 2 Technical checkup of existing networks and structures;
- Topo-geodesic surveys, engineering-hydrogeological and geological conditions;
- 4 Effective normative documents (rules and regulations) of the Republic of Armenia.

#### 1.2 Natural Conditions

The area covering Aghvorik, Sizavet, Ardenis, Mets Sepasar, Alvar and Krasar communities is located in Akhuryan River Basin, which serves as drinking water source for the communities.

The communities are located in relatively flat location of the northern part of Shirak Marz (Region), protected by mountains from the north. The highest elevation mark reaches to 2,440 m.

The climate is cold: in cold seasons, the average annual outdoor air temperature reaches to -33<sup>0</sup>, and +17<sup>0</sup>, in warm season; soil-freezing depth (frost line) is 104 centimeters.

The area represents an agricultural zone, mainly used for cattle breeding.

Connection of the communities with towns and other communities of the region is via roads.

#### 1.3 Topo-geodesic surveys, engineering-hydrogeological and geological conditions

Based on surveys of existing water intake structures, water main and water supply networks conducted in July 2011, the planning installation (M 1:10,000 proportion scale) on tablet and cadastral maps of the specified facilities were produced.

Measuring works were performed at stations of water intake structures, water conduit and water supply networks and sited on the topological plan.

Plans were developed at M 1:2000, 1:500 and 1:200 proportion scales, elevation marks were specified according to the Baltic system of heights. Those marks range within 2000/2050m.

Along the route of existing aqueduct of Aghvorik community it was selected the territory of designed DDR facility and it was connected with the existing construction, envisaging the road for autotransportation.

The sources of water supply for the observed communities are ground waters running from hillsides, in the form of downstream springs.

Water intake is ensured by water catchment chambers, with the exception of Sizavet community, where water is supplied from gravity flow water well. According to the conducted environmental measurements, the water outlet (debit) from strings and water wells of the community constitutes:

Community	Average water outlet, I/sec
Aghvorik-	0,75
Sizavet-	2,0
Ardenis-	2,0
Mets Sepasar-	4,0
Alvar-	0,3
Krasar-	2,0

Spring catchment chambers are in poor condition causing major losses, since a large portion of water flows on relief, bypassing the chambers.

According to available materials, the coefficient of heterogeneity of spring bedrock is  $\eta \ge 2$ , and the average coefficient of filtration ranges between  $5 \div 10 \text{m/day}$ .

In spring catchment area of Aghvorik and Alvar communities, due to their accident condition, it is planned to design a horizontal water intake pipeline. In other communities, water intake structures are in good condition.

In Krasar community, there are over seven operating spring catchment small chambers scattered in gorges of hillsides.

Surveys carried out in this community resulted in identification of a running spring with 4-6 l/sec debit capacity. Previously, the spring was exploited via a pumping station: the water was pumped to a daily regulatory reservoir (DRR) through pressure pipeline. Currently, the pumping station, substation, high voltage line and water pipeline are collapsed.

The solution proposed under this design envisages supply of water by gravity flow, covering 160m distance, directing the spring water (from existing spring catchment chamber) to the operating spring, by gravity flow-pressure water pipeline feeding the community DRR.

This scheme of providing water from the spring is shown in the design solutions attached to the working documents.

Geological surveys of the area, water conduit direction and the designed DRR facilities showed that the soil structure of the area is as follows:

- 0-1,0m gravel soil with argillo-arenaceous filling, with up to §6r (Class IV grounds);
- 1,0-2,5m gravel soil with fractures, with up to 70% argillo-arenaceous filling §36д (Class V grounds);
- 2.5-3.5m gravel soil with fractures, with over 70% argillo-arenaceous filling §6e (Class VI grounds).

The soil structure in areas, where water pipelines pass through streets, is as follows:

- 0-0,3 m argillo-arenaceous with gravel §33q (Class III);
- 0,3-1,0m gravel with argillo-arenaceous filling, with up to 30% fractures §6q (Class IV);
- 1,0-1,5m gravel soil with fractures, with up to 70% argillo-arenaceous filling §36η (Class V).

Design of structures relies on the following calculation data:

- Seismic zone III (9 magnitude)
- Snow load standard Area V, 200kg/m<sup>2</sup> as per RA Building Codes –II-6.02-2006
- Wind load Area III, 45 kg/m<sup>2</sup>
- Freezing zone 104 cm

#### 2. EXISTING WATER SUPPLY SYSTEM

The communities have an operating centralized technical-drinking water supply network that feeds from ground water of springs flowing down the hillsides, where water catchment chambers are built.

As mentioned above, the design proposes a horizontal water intake structures in Aghvorik and Alvar communities. In all the communities, with the exception of Aghvorik, there are DRR facilities, with water regulating and accident control systems.

It is necessary to build a fence around water inlet and DRR facilities and replace damaged slide valves.

A water reservoir with 2x150m<sup>3</sup> capacity in Ardenis and Krasar communities each is subject to renovation. Replacement of pipes in separate sections of the water pipelines and water supply networks is required. At present, the water conduits and networks are mainly in good condition.

Water reservoirs of Sizavet and Alvar communities operate through steel pipes of 2020 mm diameter and 20m length, 4x50 m<sup>3</sup> capacities respectively.

Water reservoirs of Sizavet community with 4x50m<sup>3</sup> capacities are not functioning. For exploitation of those reservoirs, it is necessary to construct a pumping station and a conduit, which would be implemented under a separate project, by the consent of the community authorities.

The capacity of spring catchment chamber in Mets Sepasar community is 200m<sup>3</sup>; the community also has water reservoirs with 2x50m<sup>3</sup> capacities.

#### 3. DESIGNED WATER SUPPLY SYSTEM

#### 3.1 Water use

For each community, water resource balance of 2011 and water use calculated balance for 2015 are drawn up, based on initial data provided by the Client in the design task.

According to the water use balance, projected calculated consumption of drinking water for 2015 makes:

Consumption	By communi	By communities					
	Aghvorik	Sizavet	Ardenis	Mets Sepasar	Alvar	Krasar	
Average daily m <sup>3</sup>	52,8	132,47	119,8	307,6	75,5	238,3	
Maximum daily m <sup>3</sup>	63,44	158,93	143,76	369,12	91,9	285,96	
Average rate of flow – litre/sec	0,61	1,53	1,39	3,56	0,89	2,75	
Maximum rate of flow - I/sec	2,66	6,22	5,99	14,2	3,9	11,6	

The table below shows current capacity rate of water supplied from spring catchment chambers and a water well (Sizavet):

Consumption	By communities					
	Aghvorik	Sizavet	Ardenis	Mets Sepasar	Alvar	Krasar
Daily m <sup>3</sup>	64,8	172,8	172,8	345,6	25,92	172,8
Maximum daily m <sup>3</sup>	-	-	-	-	-	-
Average rate of flow - I/sec	0,75	2,0	2,0	4,0	0,3	2,0

According to the above-specified indicators, there is a shortage of water in Alvar and Krasar communities.

	Alvar	Krasar
Daily m <sup>3</sup>	49,58	65,5
Average rate of flow – I/sec	0,59	0,75

It is designed to construct a horizontal water intake in Alvar community and to put into operation currently running, yet abandoned spring.

According to drawn up matrixes and integral diagrams, water use schedules (regimes) of communities are shown, which have served as basis for calculation of designed water supply networks and structures.

# 3.2 Water supply sources, system and scheme: main design solutions

Based on data of research studies, technological and sanitary surveys/inspections, ground water available in operating spring catchments and the water well area have been accepted as "water supply sources".

The current situation analysis has confirmed the necessity of protecting centralized technical-drinking-antifire water supply system functioning in the community. Water is supplied by gravity flow water mains to DRRs and from there to water supply networks of the communities.

In Aghvorik and Alvar communities, it is envisaged to construct a horizontal pipe water inlet of polyethylene corrugated pipes with de=250 mm diameter and a water catchment chambers with a gallery.

In Aghvorik community it is selected DRRs' facilities territory along the planned conduit, whereas the reservoirs of volume 2x100m<sup>3</sup> are planned.

In the reservoirs shall be accumulated the regulating, accident and emergency anti fire volumes, providing uninterruptable and sustainable water drift towards water supply systems.

It is planned to build fences around the exiting water intake and DRR facilities, which will ensure the first zone of sanitary protection. In addition, it is envisaged to replace not working slide valves in wells.

It is designed to renovate a water reservoir with 2x150m3 capacities in Ardenis and Krasar communities each. In all DRR facilities of the communities, and in spring catchment chamber of Mets Sepasar community, it is necessary to install ceramic chlorination plant and seek the consent of the State Hygiene and Anti-Epidemic Inspectorate.

In separate sections of water pipelines and networks, it is envisaged to replace damaged pipes and to construct new water pipelines. In respective points of the networks, wells with fire hydrants are designed.

Accepted design solutions are introduced in the working documents.

#### 4. ENVIRONMENT PROTECTION

With the view of assessing the environmental impact of reconstruction and construction of water supply networks and structures of Aghvorik, Sizavet, Ardenis, Mets Sepasar, Alvar and Krasar communities of Shirak Region, the following components have been assessed within the scope of the environmental impact assessment (EIA):

- Potential impact on atmospheric air pollution due to emissions of building machinery used during the construction phase;
- Qualitative and quantitative composition of construction wastes;
- Impact on soils, wildlife and vegetation.

Construction phase will be implemented by mechanized complex and include:

- Processing of soil
- Erection (fitter's) works
- Painting works

During construction, destruction of ground mass and disturbance of balanced interconnections between landscape components (disturbance of equilibrium) are observed, and air pollution occurs due to the work of building machinery and mechanisms.

#### Atmospheric air

During construction, atmospheric emissions of dust, carbon, nitrogen oxides sulphuric anhydride and exhaust (gas) and other combustion products are observed. The damage caused to economy due to atmospheric air pollution is assessed to be AMD 1.5 mln.

#### Surface water

During construction, the nearby water basin is impacted by uncontrolled outflow of rainwater accumulated during atmospheric precipitation, which runs from construction sites to the nearby water basin due to friction slope.

Economic damage caused to water economy is assessed to be nearly AMD 560,000.

# Disturbance of lands

The estimated amount of economic damage caused to environment due to disturbance of soils is AMD 120,000.

The economic damage caused to the environment during the reconstruction of the water supply networks and structures is estimated to reach AMD 2.18 mln.

# Wastes

Accumulated construction wastes are collected in construction sites. Soil remained after backfilling, as well as construction and household wastes will be transported to the solid garbage sanitary fill.

It is worth mentioning that the impact on environment during all phases of the construction will be temporary, and such impact may be minimized in case of accurate performance of, and compliance with, working instructions/guidelines.

Currently, chlorination is not ensured in existing and DRRs facilities and water catchments, as well as those planed for reconstruction under the Design, resulting in the estimate of AMD 10 mln economic damage to the environment and health of the population.

In this respect, authorities of the communities need to arrange installation of hanging ceramic chlorination plant in water reservoirs and in spring catchment chamber (in Mets Sepasar community), and seek agreeing their actions with the regional Hygiene and Anti-Epidemic Station.

In case of implementing the recommended actions, the amount of chorine emissions will make 0.0156 tons and the economic damage will amount to AMD 50,000 per annum.

Construction has adverse impact on environment. Therefore, with the view of mitigating and eliminating adverse anthropogenic environmental impacts and ensuring efficient use of natural resources, the following environmental measures are planned during the construction phase:

- Construction of protective waterproof structure;
- 2. Accurate and detailed implementation of construction works of water conduit engineering networks;
- 3. Isolation and protection of sanitary-hygienic protective zones;
- 4. Organization of frequent control of ground water levels and quality;

- 5. Replenishment of the building mechanical plant and equipment with power units ensuring minimum weighted emission of hazardous substances/dangerous materials;
- 6. Ensuring closed gas and lubricant filling of construction machinery;
- 7. Sprinkling of areas of construction sites.

The aforementioned measures will ensure, and contribute to, protection of the environment.

#### **GENERAL REQUIREMENTS**

- Renovation of existing water supply structures and networks and construction of new ones is recommended to implement in close collaboration with municipalities of communities and, where appropriate, with respective inspection authorities.
- Construction of one horizontal pipe water intake structure in each of Aghvorik and Alvar communities must be under strict supervision of a technical inspector, particularly the making and installation of drainage pipes, by adjusting design depth once aquifer is detected, and filling of reverse filtering layer, by maintaining faction (particle share) composition.
- It is recommended that municipalities of the communities keep the following under their regularly supervision:
- Joint Regular general testing of water in water intakes with Sanitation and Epidemiological Stations, by checking compliance with "Drinking Water" GOST;
- Water disinfection in DRR facilities with ceramic chlorination plants;
- Water elevation in water reservoirs;
- Monitoring of pressure of networks, by installing pressure meters in control sites, thereby allowing detection of water loss sites and reasons of such losses.

#### **LOT 2. LAKE ARPI WATER CATCHMENT**

#### 1. GENERAL INFORMATION: CURRENT SITUATION

# 1.1 Basis for the design; baseline materials and documents

The following have served as grounds for reconstruction and construction of water supply networks and structures of Zorakert, Tsaghkut, Garnarich, Shaghik and Zarishat communities included in the scope of Design:

- Design task assigned by the Client the World Wide Fund For Nature, Armenian Branch;
- Technical checkup /inspection/ of existing networks and structures;
- Topo-geodesic surveys, engineering-hydrogeological and geological conditions;
- Effective normative documents (rules and regulations) of the Republic of Armenia.

#### 1.2 Natural Conditions

The area of Zorakert, Tsaghkut, Garnarich, Shaghik and Zarishat communities is located in Akhuryan River Basin, which serves as drinking water source for the communities.

The communities are located in relatively flat location of the northern part of Shirak Marz (Region), protected by mountains from the north. The highest elevation mark reaches to 2300m.

The climate is cold: in cold seasons, the average annual outdoor air temperature reaches to -33<sup>0</sup>, and +17<sup>0</sup>, in warm season; soil-freezing depth (frost line) is 104c.

The area represents an agricultural zone, mainly used for cattle breeding.

Connection of the communities with towns and other communities of the region is via roads.

#### 1.3 Topo-geodesic surveys, engineering-hydrogeological and geological conditions

Based on surveys of existing water intake structures, water main and water supply networks conducted in July 2011, the planning installation (M 1:10,000 proportion scale) on tablet and cadastral maps of the specified facilities were produced.

Measuring works were performed at stations of water intake structures, water conduit and water supply networks and sited on the topological plan.

Plans were developed at M 1:2000, 1:500 and 1:200 proportion scales, elevation marks were specified according to the Baltic system of heights. Those marks range up to 2300m.

Along the route of designed aqueduct of Zarishat community it was selected the territory of designed DDR facility and it was connected with the existing construction, envisaging the road for autotransportation.

The sources of water supply for the observed communities are ground waters running from hillsides, in the form of downstream springs.

Water intake is ensured by water catchment chambers. According to the conducted environmental measurements, the water outlet (debit) from strings and water wells of the community constitutes:

Community	Average water outlet, I/sec
Zorakert-	1,2
Tsaghkut-	1,15
Garnarich-	1,3
Shaghik-	1,25
Zarishat-	0,35

Spring catchment chambers are in poor condition causing major losses, since a large portion of water flows on relief, bypassing the chambers.

According to available source materials, the coefficient of heterogeneity of spring bedrock is η≥2, and the average coefficient of filtration ranges between 5÷10m/day

In spring catchments area of Zarishat community, due to their accident condition, it is planned to design a horizontal water intake pipe. Water intake structure is being reconstructed Shaghik and Tsaghkut communities each. In other communities, water intake structures are in good condition.

In result of the assessments in Zarishat community there were revealed existing 4x50m<sup>3</sup> pipe like reservoirs. Nevertheless, in order to exploit them it is necessary to construct a new aqueduct L=1700m and the pump station, which requires significant investments.

In the design it is selected the solution to drift the water for 99m distance, directing the spring water from the planned spring catchment chambers towards 2x100m<sup>3</sup> water reservoirs, and further to the water supply network of the community.

This scheme of providing water from the spring is shown in design solutions, which are attached to working documents.

Geological surveys of the area, water conduit direction and the designed DRR facility, showed that the soil structure of the area is as follows 0

- 0-1,0m gravel soil with argillo-arenaceous filling, with up to §6r (Class IV grounds);
- 1,0-2,5m gravel soil with fractures, with up to 70% argillo-arenaceous (loam soil) filling §36д (Class V):
- 2.5-3.5m gravel soil with fractures, with over 70% argillo-arenaceous filling §6e (Class VI).

The soil structure in areas, where water pipelines pass through streets, is as follows:

- 0-0,3 m argillo-arenaceous with gravel §33q (Class III);
- 0,3-1,0m gravel with argillo-arenaceous filling, with up to 30% fractures §6q (Class IV);
- 1,0-1,5m gravel soil with fractures, with up to 70% argillo-arenaceous filling §36դ (Class V)

Design of structures relies on the following calculation data:

- 1. Seismic zone III (9 magnitude)
- 2. Snow load standard –Area V, 200kg/m<sup>2</sup> as per RA Building Codes –II-6.02-2006
- 3. Wind load Area III, 45 kg/m<sup>2</sup>
- 4. Freezing zone 104 cm.

#### 2. EXISTING WATER SUPPLY SYSTEM

The communities have an operating centralized technical-drinking water supply network that feeds from ground water of springs flowing down the hillsides, where water catchment chambers are built.

As mentioned above, the design proposes a horizontal water intake structure in Zarishat community. A downstream spring catchment is being reconstructed in Shaghik and Tsaghkut communities each. In all the communities, there are DRR facilities, with water regulating and accident control systems, in exception of Zarishat community, whereas 2x100m<sup>3</sup> water reservoirs are planned.

It is necessary to build a fence around water inlet and DRR facilities and replace damaged slide valves.

Currently, the water conduits and networks are mainly in good condition.

Water reservoirs of the communities operate through steel pipes of 2020 mm diameter and 20m length.

# 3. DESIGNED WATER SUPPLY SYSTEM

#### 3.1 Water use

For each community, water resource balance of 2011 and water use calculated balance for 2015 are drawn up, based on initial data provided by the Client in the design task.

According to the water use balance, projected calculated consumption of drinking water for 2015 makes:

Consumption	By communities					
	Zorakert Tsaghkut Garnarich Shaghik Zarisha					
Average daily m <sup>3</sup>	82,7	92,3	108,6	94,2	83,5	
Maximum daily m <sup>3</sup>	99,24	110,76	130,32	113,04	100,2	

Average rate of flow - litre/sec	0,96	1,07	1,26	1,09	0,97
Maximum rate of flow - I/sec	4,11	4,09	5,25	4,56	4,81

The table below shows current consumption rate of water supplied from spring catchment chambers

Consumption	By communities					
	Zorakert	Tsaghkut	Garnarich	Shaghik	Zarishat	
Daily m <sup>3</sup>	103,68	99,36	112,32	108,06	30,24	
Maximum daily m <sup>3</sup>	-	-	-	-	-	
Average rate of flow - I/sec	1,2	1,15	1,3	1,25	0,35	

According to the above-specified indicators, there is a shortage of water in Zarishat community.

Daily m <sup>3</sup>	53,57	
Average rate of flow- I/sec	0,62	

To fill the deficit, it is envisaged to construct a horizontal water intake and 2x100m<sup>3</sup> reservoirs in Zarishat community.

According to drawn up matrixes and integral diagrams, water use schedules (regimes) of communities are shown, which have served as basis for calculation of designed water supply networks and structures.

# 3.2 Water supply sources, system and scheme: main design solutions

Based on data of researches, technological and sanitary surveys/inspections, ground water available in operating spring catchments and the water well area are accepted as water supply sources.

The present situation analysis has confirmed the necessity of protection of centralized technical-drinkinganti-fire water supply system functioning in the community. Water is supplied by gravity flow water mains to DRRs and from there to water supply networks of the communities.

In Zarishat community, communities, it is envisaged to construct a horizontal pipe water inlet of polyethylene corrugated pipes with de=250 mm diameter and a water catchment chambers with a gallery. It is also designed to reconstruct one operating downstream spring catchment in each of Tsaghkut lı Shaghik communities.

In Zarishat community it is selected DRRs' facilities territory along the planned conduit, whereas the reservoirs of volume 2x100m<sup>3</sup> are planned.

In the reservoirs shall be accumulated the regulating, accident and emergency anti fire volumes, providing uninterruptable and sustainable water drift towards water supply systems.

It is planned to build fences around the exiting water intake and DRR facilities, which will ensure the first zone of sanitary protection. In addition, it is envisaged to replace not working slide valves in wells.

In DRRs area of Zorakert community it is planned distribution well with valves, thus to provide the Zorakert and Berdashen communities with water.

In DRRs area of Garnarich community, two water wells with slide valves and connection of two conduits to the DRRs' entrance and switcher are designed. In all DRR facilities, it is necessary to install ceramic chlorination plant and seek consent of respective state inspectorates.

In separate sections of water pipelines and networks, it is envisaged to replace damaged pipes and to construct new water pipelines. In respective points of the networks, wells with fire hydrants are designed. In respective points of the networks, wells with fire hydrants are designed, with the exception of Garnarich, Tsaghkut and Zorakert communities, where wells with hydrants are available.

Accepted design solutions are introduced in working documents.

## 4. ENVIRONMENT PROTECTION

With the view of assessing the environmental impact of reconstruction and construction of water supply networks and structures in Zorakert, Tsaghkut, Garnarich, Shaghik and Zarishat communities, the following components have been assessed within the scope of the environmental impact assessment (EIA):

- Potential impact on atmospheric air pollution due to emissions of building machinery used during the construction phase;
- Qualitative and quantitative composition of construction wastes;
- Impact on soils, wildlife and vegetation.

Construction phase will be implemented by mechanized complex and include:

- Processing of soil
- Erection (fitter's) works
- Painting works

During construction, destruction of ground mass and disturbance of balanced interconnections between landscape components (disturbance of equilibrium) are observed, and air pollution occurs due to the work of building machinery and mechanisms.

## Atmospheric air

During construction, atmospheric emissions of dust, carbon, nitrogen oxides sulphuric anhydride and exhaust (gas) and other combustion products are observed. The damage caused to economy due to atmospheric air pollution is assessed to be AMD 1.5 mln.

## Surface water

During construction, the nearby water basin is impacted by uncontrolled outflow of rainwater accumulated during atmospheric precipitation, which runs from construction sites to the nearby water basin due to friction slope.

Economic damage caused to water economy is assessed to be nearly AMD 560,000.

## Disturbance of lands

The estimated amount of economic damage caused to environment due to disturbance of lands is AMD 120,000.

The economic damage caused to the environment during the reconstruction of the water supply networks and structures is estimated to reach AMD 2.18 mln.

#### Wastes

Accumulated construction wastes are collected in construction sites. Soil remained after backfilling, as well as construction waste and household rubbish will be transported to the solid garbage sanitary fill.

It is worth mentioning that the impact on environment during all phases of the construction will be temporary, and such impact may be minimized in case of accurate performance of, and compliance with, working instructions/guidelines.

Currently, chlorination is not ensured in existing and DRR facilities and water catchments, as well as those planed for reconstruction under the Design, resulting in the estimate of AMD 10 mln economic damage to the environment and health of the population.

In this respect, authorities of the communities need to arrange installation of hanging ceramic chlorination plant in water reservoirs and in case of Mets Sepasar community - in spring catchment chamber, and seek agreeing their actions with the regional Hygiene and Anti-Epidemic Station.

In case of implementation of recommended actions, the amount of chorine emissions will make 0.0156 tons and the economic damage will amount to AMD 50,000 per annum.

Construction has adverse impact on environment. Therefore, with the view of mitigating and eliminating adverse anthropogenic environmental impacts and ensuring efficient use of natural resources, the following environmental measures are planned during the construction phase:

- 1. Construction of protective waterproof structure;
- Accurate and detailed implementation of construction works of water conduit engineering networks;
- 3. Isolation and protection of sanitary-hygienic (protective) zones;
- 4. Organization of frequent control of ground water levels and quality;
- Replenishment of the building mechanical plant and equipment with power units ensuring minimum weighted emission of hazardous substances/dangerous materials;
- 6. Ensuring closed gas and lubricant filling of construction machinery;
- 7. Sprinkling of areas of construction sites.

The aforementioned measures will ensure, and contribute to, protection of the environment.

## 5. GENERAL REQUIREMENTS

Renovation of existing water supply structures and networks and construction of new ones is recommended to implement in close collaboration with municipalities of communities and, where appropriate, with respective inspection authorities.

Construction of one downstream spring catchment in each of Tsaghkut and Shaghik communities and a horizontal pipe water intake in Zarishat community communities must be under strict supervision of a technical inspector, particularly the making and installation of drainage pipes, by adjusting design depth once aquifer is detected, and filling of reverse filtering layer, by maintaining faction (particle share) composition.

It is recommended that municipalities of the communities keep the following under their regularly supervision:

- Regular general testing of water in water intakes, by checking compliance with "Drinking Water"
   GOST;
- Water disinfection in DRR facilities with ceramic chlorination plants;
- Water elevation in water reservoirs;
- Monitoring of pressure of networks, by installing pressure meters in control sites, thereby allowing detection of water loss sites and reasons of such losses.

Section 6. General Conditions of the Contract

## 1. Definitions

1.1 The following words and expressions shall have the meanings hereby assigned to them:

"Bank" means the KfW and refers to the Kreditanstalt für Wiederaufbau (KfW).

"Contract" means the Contract Agreement entered into between the Employer and the Contractor, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.

"Contract Documents" means the documents listed in the Contract Agreement, including any amendments thereto.

"Contract Price" means the price payable to the Contractor as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.

"Day" means calendar day.

"Completion" means the fulfillment of the Services by the Contractor in accordance with the terms and conditions set forth in the Contract.

"GCC" means the General Conditions of Contract.

"Employer's Country" is the country specified in the Special Conditions of Contract (SCC).

"Employer's" means the entity purchasing the Services, as specified in the SCC.

"Related Services" means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance and other such obligations of the Contractor under the Contract.

"SCC" means the Special Conditions of Contract.

"Subcontractor" means any natural person, private or government entity, or a combination of the above, to whom any part of the Services to be supplied or execution of any part of the Services is subcontracted by the Contractor.

"Contractor" means the natural person, private or government entity, or a combination of the above, whose Bid to perform the Contract has been accepted by the Employer and is named as such in the Contract Agreement.

"The Project Site," where applicable, means the place named in the SCC and where the Works are to be executed and to which Plant and Materials are to be delivered and any other places as may be specified in the Contract as forming of the Site.

"Constractor's equipment" means all apparatus, machinery, vehicles and other things required for the execution and completion of the Works and the remedying of any defects. However, Contractor's Equipment excludes Temporary Works, Employer's Equipment (if any), Plant, Materials and any other things intended to form or forming part of the Permanent Works

"Materials" means things of all kinds (other then Plant) intended to form or forming part of the Permanent Works, including the supply-only materials (if any) to be supplied by the Contractor under the Contract.

"Permanent Works" means the permanent works to be executed by the Contractor under the Contract.

"Temporary Works" means all temporary works of every "kind (other than Contractor's Equipment) required on Site for the execution and completion of the Permanent works and remedying of any defects

"Works" mean the Permanent and Temporary Works, or either of them as appropriate

"Section of Works" means logical subdivision of several components or Items of Works, which are indicated in the work schedule or a part of it.

"In Writing" means communication in written form with proof of receipt.

## 2. Contract Documents

2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.

# 3. Fraud and Corruption

- 3.1 If the Employer determines that the Contractor has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract, then the Employer may, after giving 14 days notice to the Contractor, terminate the Contractor's employment under the Contract and cancel the contract, and the provisions of GCC Clause 31 shall apply as if such expulsion had been made under GCC Sub-Clause 31.1.
- (a) For the purposes of this Sub-Clause:
  - (i) "corrupt practice"3 is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
  - (ii) "fraudulent practice" 4 is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
  - (iii) "collusive practice"5 is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
  - (iv) "coercive practice"6 is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
  - (v) "obstructive practice" is

(a) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or

<sup>&</sup>quot;another party" refers to a public official acting in relation to the procurement process or contract execution]. In this context, "public official" includes KfW staff and employees of other organizations taking or reviewing procurement decisions.

a "party" refers to a public official; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution.

<sup>5 &</sup>quot;parties" refers to participants in the procurement process (including public officials) attempting to establish Bid prices at artificial, non competitive levels.

a "party" refers to a participant in the procurement process or contract execution.

- (b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under Clause 11 [Inspections and Audits by the Bank].
- 3.2 Should any employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive, or obstructive practice during the procurement and implementation of the Works, then that employee shall be removed.

# 4. Interpretation

- 4.1 Except where the context requires otherwise:
  - a). words indicating the singular also include the plural and words indicating the plural also include singular;
  - b) provisions including the word "agree", "agreement", "agreed" require the agreement to be recorded in writing, and
  - c). "written" or "writing" means hand written, type-written, printed or electronically mad, and resulting in a permanent record.

## 4.2 Entire Agreement

The Contract constitutes the entire agreement between the Employer and the Contractor and supersedes all communications, negotiations and agreements (whether written or oral) of the parties with respect thereto made prior to the date of Contract.

#### 4.3 Amendment

No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.

#### 4.4 Nonwaiver

- Subject to GCC Sub-Clause 4.4(b) below, no relaxation, forbearance, delay, or indulgence by
  either party in enforcing any of the terms and conditions of the Contract or the granting of time by
  either party to the other shall prejudice, affect, or restrict the rights of that party under the
  Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of
  any subsequent or continuing breach of Contract.
- Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

## 4.5 Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity, or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

## 5. Language

5.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Contractor and the Employer, shall be written in the language specified in the SCC. Supporting documents and printed literature that are part of the Contract may be in another language provided they are

accompanied by an accurate translation of the relevant passages in the language specified, in which case, for purposes of interpretation of the Contract, this translation shall govern.

5.2 The Contractor shall bear all costs of translation to the governing language and all risks of the accuracy of such translation, for documents provided by the Contractor.

## 6. Joint Venture, Consortium, or Association

If the Contractor is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Employer for the fulfillment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Employer.

## 7. Eligibility

7.1 The Contractor and its Subcontractors shall have the nationality of an eligible country. A Contractor or Subcontractor shall be deemed to have the nationality of a country if it is a citizen or constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country.

#### 8. Notices

Any notice given by one party to the other pursuant to the Contract shall be in Writing to the address specified in the SCC. A notice shall be effective when delivered or on the notice's effective date, whichever is later.

## 9. Governing Law

The Contract shall be governed by and interpreted in accordance with the laws of the Employer's Country, unless otherwise specified in the SCC.

## 10. Settlement of Disputes

- 10.1 The Employer and the Contractor shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- 10.2 If, after twenty-eight (28) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Employer or the Contractor may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after performing of the Works under the Contract. Arbitration proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.
- 10.3 Notwithstanding any reference to arbitration herein,
  - a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
  - b) the Employer shall pay the Contractor any amounts due the Contractor.

## 11. Scope of Supply

11.1 The Works and Service to be performed shall be as specified in the Employer's Requirements (Terms of Reference)

## 12. Time for Completion

- 12.1 The contractor shall complete the whole of the Works and each Section (if any), within the Time for Completion for the Works or Section as the case may be, including:
- a)completing all work which is stated in the Contract are being required for the Works or Section to be considered to be completed for the purpose of taking-over under GCC Sub Clause 13.1 b) Balancing and testing
- 12.2 Time for Completion must be in accordance with the Work Schedule.

## 13. Taking over and documents

- 13.1 The Works or its Section will be accepted only upon bilateral signing the Acceptance Act and the documents specified in GCC Clause 13.6.
- 13.2 The Contractor must inform Employer about partial or final completion of the Works and Sections in written. The information about completion of the Works or its Section must be confirmed by Construction Supervisor. Also Construction Supervisor will participate on balancing and testing of the system in operation and its functionality. In case if the Works or Sections are performed improperly or in case of their inconformity with Employers Requirements the parties make bilateral statement specifying additional works and time frames required for remediation of defects and shortcomings. The Contractor is obliged to implement required works within the contract price without additional payment. In case when previously identified defects, which were not remedied by the Contractor, the Works or its Section will not be accepted by the Employer.
- 13.3 For remediation Employer will give reasonable time to Contractor (time will be determined by the Employer in consultancy with the Construction Supervisor), but if the defects are not remedied the Employer has right to use penalties as described in GCC Clause 27.
- 13.4 The performing the Works or its part shall be taking over by the Employer when (i) the Works have been completed in accordance with the Contract, including the matters described in GCC Sub Clause 12.1, and (ii) Taking Over Certificate with indication of detailed volumes and values of implemented Works has been issued, or is deemed to have been issued in accordance with this Sub Clause.
- 13.5 After Completion of the Works Provisional Acceptance act shall be issued. After the expiration of the Warranty period and after remediation of all defects occurred in this period, the Final Acceptance Act shall be issued.
- 13.6 The document package which Contractor shall present to the Employer for acceptance of Works or Sections is specified in SCC.

13.7 If during taking over of the Work it becomes clear that the modification or amendment of Works are necessary, then these works shall be implemented through additional agreement specifying their implementation time terms and costs.

# 14. Monitoring (Supervision) of the Works

- 14.1 Monitoring and supervision of the Works and Contractors performance will be conducted by the appointed Construction Supervisors the on-site construction technical supervision and designer supervision entities, hired by the Employer.
- 14.2 Construction Supervisor as well as Employer's representatives shall conduct technical monitoring and participate on testing of the performed Works or its Section, for identifying their compliance with the Contract requirement.
- 14.3 The volumes and values of the issued Taking Over Certificate as well as their compliance with project, shall be examined by Construction Supervisors. Only upon positive/satisfying conclusion of the Construction Supervisors via legal signature of the Taking Over Certificate the Employer will accept the relevant Works.

## 15. Contractor's General Obligations

- 15.1 The Contractor shall execute and complete the Works in accordance to the Contract and shall remedy any defects in the Works.
- 15.2 The Contractor shall be responsible for the adequacy, stability, and safety of all Site operations and of all methods of construction. Except to the extend in the Contract the Contractor shall be responsible for all Contractor's Documents, Temporary Works and such design of each item of Plant and Materials as it is required for the item to be in accordance with the Contract and shall not otherwise be responsible for the design or specification of the Permanent Works.
- 15.3 The Contractor shall, whenever required by the Employer, submit details of the arrangements and methods which Contractor proposed to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without having previously agreed with the Employer.
- 15.4 The Contractor shall provide all Works as per GCC Clause 11 and 12.
- 15.5 The Contractor is subordinated to the Construction Supervisors and their indications are compulsory for the Contractor. Constructor shall facilitate implementation of their obligations and normal working conditions.
- 15.6 The Contractor on his expense and in time frames specified by the Employer shall remedy any defects and shortcoming in accordance with GCC Clause 13.2.
- 15.7 Contractor prior to using of major Materials shall submit to Employer samples of Materials and all other relevant objects for approving.
- 15.8 Contractor shall set his staff with 70 % by the Armenian citizens. Priority should be given to the population of the appropriate target villages

## 16. Contract Price

16.1 Prices charged by the Contractor for the Works performed under the Contract shall not vary from the prices quoted by the Contractor in its bid, with the exception of any price adjustments authorized in the SCC.

16.2 If any quantities which are set out in Bill of Quantities are not performed or performed in less quantities the Employer will decrease them from the Contract Price. Performance will be checked by the Construction Supervisors as described in GCC Clause 14.

# 17. Terms of Payment

- 17.1 The Contract Price, including any Advance Payments, if applicable, shall be paid as specified in the SCC.
- 17.2 The Contractor's request for payment shall be made to the Employer in writing, accompanied by invoices describing, as appropriate, the Works performed, and by the documents submitted pursuant to GCC Clause 13.4 and 13.5 and upon fulfillment of all other obligations stipulated in the Contract.
- 17.3 Payments shall be made promptly by the Employer upon submission by the Contractor the documents indicated in the GCC Clause 13.4 and 13.5, but in no later than thirty (30) days after Employer has accepted them.
- 17.4 The currencies in which payments shall be made to the Contractor under this Contract shall be those in which the Bid price is expressed.
- 17.5 In the event that the Employer fails to pay the Contractor any payment by its due date or within the period set forth in the SCC, the Employer may be subjected to payment to the Contractor interest on the amount of such delayed payment at the rate shown in the SCC, for the period of delay until payment has been made in full, whether before or after judgment or arbitrage award.

#### 18. Taxes and Duties

- 18.1 For goods manufactured outside the Employer's Country, the Contractor shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the Employer's Country.
- 18.2 If any tax exemptions, reductions, allowances, or privileges may be available to the Contractor in the Employer's Country, the Employer shall use its best efforts to enable the Contractor to benefit from any such tax savings to the maximum allowable extent.

## 19. Advance Payment Security and Performance Security

- 19.1. As and if required and specified in the SCC, the Contractor shall, within fourteen (14) days upon signing of the Contract, provide an Advance Payment Security and a Performance Security for the performance of the Contract in the amount specified in the SCC.
- 19.2. The proceeds of the Advance Payment Security and the Performance Security shall be payable to the Employer as compensation for any loss resulting from the Contractor's failure to complete its obligations under the Contract. The Advance Payment Security and the Performance Security shall be valid and enforceable until the Contractor has executed and completed the Works and remedied any defects. If will be needed the Contractor shall extend the validity of the Performance Security until the Works have been completed and any defects have been remedied.
- 19.3. As specified in the SCC, the Advance Payment Security and Performance Security, if required, shall be denominated in the currency (ies) of the Contract or in a freely convertible currency acceptable to the Employer and shall be in the format stipulated by the Employer in the SCC,
- 19.4. The Advance Payment Security and Contract Performance Security shall be discharged by the Employer and returned to the Contractor not later than twenty-eight (28) days following the Contractor's performance of obligations under the Contract, including any warranty obligations, unless specified otherwise in the SCC.

19.5. Upon the issuance of the Preliminary Acceptance of the Works the Performance Security shall be reduced to 2.5 (two and half) % of the Contract Price covering the Warranty period.

#### 20. Confidential Information

- 20.1 The Employer and the Contractor shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Contractor may furnish to its Subcontractor such documents, data, and other information it receives from the Employer to the extent required for the Subcontractor to perform its work under the Contract, in which event the Contractor shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Contractor under GCC Clause 20.
- 20.2 The Employer shall not use such documents, data, and other information received from the Contractor for any purposes unrelated to the contract. Similarly, the Contractor shall not use such documents, data, and other information received from the Employer for any purpose other than the performance of the Contract.
- 20.3 The obligation of a party under GCC Sub-Clauses 20.1 and 20.2 above, however, shall not apply to information that:
  - a) the Employer or Contractor need to share with the Bank or other institutions participating in the financing of the Contract;
  - b) now or hereafter enters the public domain through no fault of that party;
  - c) can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or
  - d) otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.
- 20.4 The above provisions of GCC Clause 20 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.
- 20.5 The provisions of GCC Clause 20 shall survive completion or termination, for whatever reason, of the Contract.

## 21. Subcontracting

- 21.1 The Contractor shall not subcontract the whole of the Works. The subcontracting acceptable portion is indicated in the SCC.
- 21.2 The Contractor shall notify the Employer in writing of all subcontracts awarded under the Contract if not already specified in the bid. Such notification, in the original Bid or later shall not relieve the Contractor from any of its obligations, duties, responsibilities, or liability under the Contract.
- 21.3 Subcontracts shall comply with the provisions of GCC Clauses 3 and 7.

#### 22. Specifications and Standards

## 22.1 Technical Specifications and Drawings

The Works performed under this Contract shall conform to the Employer's Requirements (ToR) and to the technical specifications and standards indicted in the Bidding Documents.

## 23. Security of the Site and Protection of Environment

- 23.1 The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- 23.2 Unless otherwise stated in SCC:
  - a) The Contractor shall be responsible for keeping unauthorized persons off the Site, and
  - b) Authorized persons shall be limited to the Contractor's Personnel and Employer's Personnel, and to any other personnel notified to the Contractor by the Employer as authorized personnel on Site.
- 23.3 During the execution of the Works the Contractor shall keep the Site free from all unnecessary obstruction, and shall store or dispose of any Contractor's Equipment or surplus materials. The Contractor shall clear away and remove from the Site any wreckage, rubbish.
- 23.4 Upon completion of Works Contractor shall leave the Site in clean and safe condition.
- 23.5 Contractor shall carry out actions and reasonable expenses related to suspension of Works in case of necessity of construction conservation.

## 24. Records of the performing

24.1 Contractor shall record on daily basis in Journal works performed, personnel employed and their data, materials used, quality control process and other.

## 25. Safety Procedures

The Contractors shall:

- a). comply with applicable safety regulations.
- b). take care for the safety of all persons entitled to be on the Site.
- c). use reasonable efforts to keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons.
- d) provide fencing, lighting, guarding, and watching of the Works until completion and taking over under GCC Clause 13.
- e) provide any Temporary Works (including roadway, footway, guards, and fences) which may be necessary, because of the execution of the Works for the use and protection of the public and of owners and occupiers of adjacent land.
- g) Provide the personnel with individual safety means (overalls, safe shoes, tin hats, glasses, belts and others):

## 26. Warranty and Insurance

26.1. The Contractor warrants that all the Works are performed in accordance with the widely accepted rules and guidelines, and in accordance to the Contract and requirements of the Bidding Documents.

- 26.2. Contractor further warrants that the Works shall be free from defects arising from any act or omission of the Contractor, or arising from his own design work, materials, and workmanship, under normal use in the conditions prevailing in the or arising from his design work, country of Employer.
- 26.3. The Contractor shall insure the goods and works adequately against all risks. The insurance period shall be valid from the start of the Works until the Final Acceptance (End of Guarantee Period) of the works.

The insurances, for example but not limited to, shall cover, for example, transport, civil works, plant and machinery, personal injury.

The insurance for civil works and plant and machinery shall specially cover risks resulting from operation of construction sites and the assemble of structures on the basis of a Contractor's All risk Insurance including insurances against damage to persons.

All insurances shall, also, be on full coverage (All Risk) and, where necessary, should include War Clauses (Cargo).

Insurance for extraordinary events, such as war, riot, terrorism, or revolution shall be to the extent possible at reasonable terms and conditions.

Otherwise the project management and the contractor are to reach a settlement on the distribution of such risk in coordination with the KFW.

- 26.4. The Warranty validity period is specified in the SCC.. During this period the Contractor on his expense shall remedy any defects raised. Only upon of the remediation of all defects and expiration of the validity period of the Guarantee the Final Acceptance Act will be signed by the parties.
- 26.5. If having been notified, the Contractor fails to remedy the defects within the Warranty period specified in the SCC the Employer may proceed to take within a reasonable period such remedial action as may be necessary, at the Contractor's risk and expense, and without prejudice to any other rights which the Employer may have against the Contractor under the Contract.

## 27. Liquidated Damages

27.1 Except as provided under GCC Clause 29, if the Contractor fails to perform any or all of the Works by the Time of Completion, the Employer may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the SCC of the delivered price of the unperformed Works for each week or part thereof of delay until actual performance, up to a maximum deduction of the percentage specified in those SCC. Once the maximum is reached, the Employer may terminate the Contract pursuant to GCC Clause 31.

# 28. Change in Laws and Regulations

28.1 Unless otherwise specified in the Contract, if after the date of 28 days prior to date of Bid submission, any law, regulation, ordinance, order or by law having the force of law is enacted, promulgated, abrogated, or changed in the place of the Employer's country where the Site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Time of Completion and/or the Contract Price, then such Time of Completion and/or Contract Price shall be correspondingly increased or decreased, to the extent that the Contractor has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with GCC Clause 16.

## 29. Force Majeure

- 29.1 The Contractor shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 29.2 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Contractor that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Contractor. Such events may include, but not be limited to, acts of the Employer in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- 29.3 If a Force Majeure situation arises, the Contractor shall promptly notify the Employer in writing of such condition and the cause thereof. Unless otherwise directed by the Employer in writing, the Contractor shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

## 30. Extensions of Time

- 30.1 If at any time during performance of the Contract, the Contractor or its subcontractors should encounter conditions impeding timely completion of the Works pursuant to GCC Clause12, the Contractor shall promptly notify the Employer in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Contractor's notice, the Employer shall evaluate the situation and may at its discretion extend the Contractor's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.
- 30.2 Except in case of Force Majeure, as provided under GCC Clause 29, a delay by the Contractor in the performance of its Completion obligations shall render the Contractor liable to the imposition of liquidated damages pursuant to GCC Clause 27, unless an extension of time is agreed upon, pursuant to GCC Sub-Clause 30.1.

## 31. Termination

- 31.1 Termination for Default
  - (a) The Employer, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Contractor, may terminate the Contract in whole or in part and claim for indemnification:
    - if the Contractor fails to perform any or all of the Works within the Time of Completion specified in the Contract, or within any extension thereof granted by the Employer pursuant to GCC Clause 30;
    - (ii) if the Contractor fails to perform his obligation under Warranty period;
    - (iii) if the Contractor fails to perform any other obligation under the Contract; or
    - (iv) if the Contractor, in the judgment of the Employer has engaged in fraud and corruption, as defined in GCC Clause 3, in competing for or in executing the Contract.

(b) In the event the Employer terminates the Contract in whole or in part, pursuant to GCC Clause 31.1(a), the Employer may procure, upon such terms and in such manner as it deems appropriate Works similar to those not performed, and the Contractor shall be liable to the Employer for any additional costs for such similar Works. However, the Contractor shall continue performance of the Contract to the extent not terminated.

## 31.2 Termination for Insolvency.

The Employer may at any time terminate the Contract by giving notice to the Contractor if the Contractor becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Contractor, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Employer

#### 31.3 Termination for Convenience.

The Employer, by notice sent to the Contractor, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Employer's convenience, the extent to which performance of the Contractor under the Contract is terminated, and the date upon which such termination becomes effective.

The Works that are complete at the moment of Contractor's receipt of notice of termination shall be accepted by the Employer at the Contract terms and prices.

## 32. Assignment

32.1 Neither the Employer nor the Contractor shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.

# **Section 7- Particular Conditions of the Contract**

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

GCC 1.1(h)	The Employer's country is: Armenia		
GCC 1.1(i)	The Employer is: WWF Armenia in the name of the of Ministry of Nature		
000(.)	Protection of the Republic of Armenia		
GCC 1.1 (n)	The Project Site(s)/Final Destination(s) is/are: 11 Communities of the Lake		
GCC 1.1 (11)	Arpi National Park's Support Zone, Shirak Region, Republic of Armenia		
GCC 5.1	The language shall be bilingual: <b>Armenian.</b>		
GCC 8.1	For <u>notices</u> , the Employer's address shall be:		
	The Employer's representative : World Wide Fund for Nature (WWF)		
	Armenian Branch		
	Attn.: Mr. Karen Manvelyan, Director		
	11 Proshyan Street.		
	0019 Yerevan		
	Republic of Armenia		
	Fax: +374 -10-588983		
	E-Mail: office_am@caucasus.org		
	RA Ministry of Nature Protection		
	Attn.: Mr. Edgar Pirumyan, Head of Administration		
	Government Building 3, Republic Square,		
	0001 Yerevan		
	Republic of Armenia		
	Fax: +374 -10-540857		
	E-Mail: e.pirumyan@mnp.am		
GCC 9.1	The governing law shall be the law of: Republic of Armenia		
GCC 10.2	The rules of procedure for arbitration proceedings pursuant to GCC Clause 10.2 shall be as follows:		
	In the case of a dispute between the Employer and a Contractor who is a		
	national of the Employer's country, the dispute shall be referred to adjudication		
	of RA Courts in accordance with the RA current legislation		
GCC 12.1	Time for completion of both lots is 4 months starting from the date of the		
	Contract signing by the last Party, and must be in accordance to Work Schedule		
	presented by the Contractor and possibly modified/adapted during the contract		
000.40.6	negotiations.		
GCC 16.1	The prices charged for the Works performed shall NOT be adjustable.		
GCC 17.1	The Employer shall pay the Contract Price to the Contractor under the following schedule:		
	20% of the Contract Price (Advance Payment) – within fifteen (15) banking days		
	upon contract effective date and receiving the Advance Payment Security and		
	Contract Performance Security		
	1		
	Up to 70% of the Contract Price (Consecutive Payment) – within fifteen (15)		
	banking days upon acceptance by the Employer of the Sections of works in accordance with the Work Schedule and bilateral signature of Taking Over Certificates and invoices		
	10% of the Contract Price (Final Payment) - within fifteen (15) banking days		
	upon bilateral signature of the Provisional Acceptance act and invoices, but		
	upon bilatoral signature of the Frovisional Acceptance act and invoices, but		

	subject to the Contract Performance Security covering the retention amounts for the works to be implemented during the Warranty period.	
	The existing Contract Performance Security may then be reduced to 2.5 (two and half) % of the Contract Value (See also Article 19.5 of the General Conditions).	
GCC 17.3	The following documents are required for payment:	
	a. Invoice with approved measurements – in triplicate - and	
	b. Acceptance Act of the Works completed – in triplicate	
The payment-delay period after which the Employer may be subjected interest to the Contractor shall be <b>30 days</b> .		
	The interest rate that shall be applied is 0,05% for each day of delay in the amount of payments that were due but were not made.	
GCC 19.1	An Advance Payment Security <b>shall be required in the amount of 20%</b> of the contract price and shall be reduced pro rata temporis on the basis of implemented works.	
	A Contract Performance Security <b>shall be required in the amount of 10%</b> of the contract price up to the Provisional Acceptance of the works and then can be reduced to an amount of 2.5% of the contract price.	
	The Contract Performance Security shall cover the Warranty Period and shall run from the start of Warranty period until the end of the Warranty Period respectively issuance of the Final Acceptance.	
	The Contract Performance Security shall be provided within fourteen (14) days upon signing of the Contract	
GCC 19.3	The Advance Payment Security and the Contract Performance Security shall be in the <b>form and currency</b> as stipulated in Section 8 of the Bidding Documents, titled "Contract Forms."	
GCC 21	The subcontracting acceptable portion is twenty-five (25) % of the whole volume of the Contract. The prior consent of the employer to sub-contracting shall not required if the value of the subcontract is less than one percent (1%) of the Accepted Contract Amount	
GCC 27.1	The liquidated damage shall be 0.05% per day	
GCC 27.1	The maximum amount of liquidated damages shall be 10%.	
GCC 26.4	The period of validity of the Warranty shall be 12 months from date of completion of the works on Sites For purposes of the Warranty, the place of final destination shall be Site of the	
	Worked performed	
GCC 26.5	The period for repair or replacement shall be 21 days.	

# **Section 8. Contract Forms**

8.1 Letter of Acceptance	Yerevan
То:	rerevan
Subject: Notification of Award for Contract No.  This is to notify you that your Bid dated xxxxxxx for execution of the I Potable Water Systems and Constructions of the Lake Arpi Na Communities	
for the Accepted Contract Amount of	
xxxxxxx (xxxxxxx) AMD as corrected and modified in accordance with the is hereby accepted.	e Instructions to Bidders,
You are requested to sign the attached Contract Agreement within two (2) Within fourteen (14) days you shall furnish the Advance Payment Security warranty (in the amount of twenty (20) percent of the contract price) and the Security in the form of the bank/insurance company's warranty (in the amount price) using for that purpose the Forms included in Section 8 (Con Bidding Documents.	in the form of the bank ne Contract Performance bunt of ten percent of the
Authorized Signature:	
Attachment: Contract Agreement	

# **8.2 Contract Agreement**

World Wide Fund for Nature (WWF) Armenian Branch	
11 Proshyan Street.	
0019 Yerevan	
Republic of Armenia	
("The Employer"),	of the one part,
and	
<full contractor="" name="" of="" official=""> [Full official address]</full>	
("the Contractor")	of the other part,
have agreed as follows:	
<b>PROJECT</b> : Rehabilitation of the Existing Potable Water Systems and National Park's Support Zone Communities	Constructions of the Lake Arpi
CONTRACT : No	

#### **Table of Contents**

Article 1: Definitions

Article 2: Contractor's Scope of Supply and Services

Article 3: Obligations of the Employer

Article 4: Contract Price

Article 5: Payment Conditions

Article 6: Time for Completion

Article 7: Contract Effective Date

Article 8: Signatures

#### **Article 1: Definitions**

In this Contract Agreement words and expressions shall have the meanings as are respectively assigned to them in the . Section 6 - General Conditions of the Contract and Section 7 – Particular Conditions of the Contract.

## **Article 2: Contractor's Scope of Works**

The Contractor will, execute and complete all works, carrying out all commissioning tests and commission the "Rehabilitation of the Existing Potable Water Systems and Constructions of the Lake Arpi National Park's Support Zone Communities" in accordance with the following documents, which shall be deemed to form and be read and construed as a part of the Contract, in the following order of precedence:

- 1. This Contract Agreement
- 2. Design Drawing
- 3. Bidding Documents incl. all annexes
- 4. Price Sheets

The terms, conditions and requirements of the Bidding Documents shall prevail except to the extent that they are expressly modified or altered by this Contract Agreement.

The above mentioned Contract Documents are intended to cover and provide for first class completed work in all respects. Everything necessary to carry out this intent which may be reasonably implied from the Contract Documents shall be done by the Contractor, even if not particularly referred to in the Contract Documents.

# Article 3: Obligations of the Employer

The Employer agrees to make to the General Contractor the payments as set forth in article 5 here under.

#### **Article 4: Contract Price**

The Contract Price is in AMD, for a reconstruction and commissioning is as follows:

..... AMD, whereas .....AMD is VAT.

The item descriptions, quantities and unit prices leading to the Contract Price are given in the Price Sheets.

## **Article 5: Payment Conditions**

The Contractor shall pay the Contract Price to the Contractor under the following schedule:

A) 20% of the Contract Price (Advance Payment) – within fifteen (15) banking days upon Contract Efective Date into force and receiving the Advance Payment Security and Contract Performance Security.

B)70% of the Contract Price (Consecutive Payment) – within fifteen (15) banking days upon acceptance by the Employer of the Sections of works in accordance with the Work Schedule and bilateral signature of Taking Over Certificates and invoices.

C)10% of the Contract Price (Final Payment) - within fifteen (15) banking days upon bilateral signature of the Provisional Acceptance act and invoices but subject to the Contract Performance Security covering the retention amounts for the works to be implemented during the Warranty period.

The existing Contract Performance Security may then be reduced to 2.5 (Two and half) % of the Contract Price (See also Article 19.5 of the General Conditions).

## **Article 6: Time for Completion**

The Time for Completion is fixed to 4 months from the date of the Contract signing by the last Party.

## **Article 7: Contract Effective Date**

The Contract shall become effective after the following conditions have been cumulatively fulfilled:

- Approval of Bidding results and approval of contract reward recommendation by KfW Development Bank
- Signing of the Contract Agreement
- Ratification of the Agreement by the RA Ministry of Nature Protection

## **Article 8: Signatures**

The parties have entered into this Contract Agreement in accordance with the content of the documents, mentioned in Article 2.

Changes, modifications and amendments, if any, have to be made in writing.

For and on behalf of	For and on behalf of
the Employer	the Contractor
(Name)	(Name)
(Date/Place)	(Date/Place)
RATIFIED	
RA Ministry of Nature Protection	
(Name)	
(Date/Place)	

8.3 Advance Payment Security	
Address of guarantor bank:	
Address of beneficiary (contracting agency):	
On you concluded with	("Contractor") a contract for
Rehabilitation of the Existing Potable Water Systems and Support Zone Communities at a price of	·
In accordance with the provisions of the contract the C amount of, which represents	
We, the undersigned (Guarantor), aforementioned contract, hereby irrevocably and independent and any amount advanced to the Contractor up to a towords:	endently guarantee to pay on your first written
Contractor has failed to duly perform the aforementioned c	ontract.
This guarantee shall come into force and effect as soon a account of the Contractor.	s the advance payment has been credited to the
In the event of any claim under this guarantee, payment s KFWIDEFF, BLZ 500 204 00), account no. 38 000 000 account of RA Ministry of Nature Protection (contracting ag	000 (IBAN: DE53 5002 0400 3800 0000 00) for
This guarantee shall expire no later than	
By this date we must have received any claims for paymer	at by letter or encoded telecommunication.
It is understood that you will return this guarantee to us on claimed hereunder.	expiry or after payment of the total amount to be
This guarantee is governed by the laws of Armenia	
Diago data	Cueronter
Place, date	Guarantor

8.4	Contract	Performance	Security
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Address of guarantor bank/insurance company:		
Address of beneficiary (contracting agency):	 	
-	th ("Contractor") a contract for stems and Constructions of the Lake Arpi National Park'sAMD	
In accordance with the provisions of the contract bond for 10 % of the contract price.	ract the Contractor is obligated to provide a performance	
defences under the aforementioned contract, he your first written demand an amount up	e Company ("Guarantor"), waiving all objections and nereby irrevocably and independently guarantee to pay on to a total of	
	payment shall be effected to KfW, Frankfurt am Main (BIC: 8 000 000 00 (IBAN: DE53 5002 0400 3800 0000 00) for tracting agency/project-executing agency).	
This guarantee shall expire no later than		
	for payment by letter or encoded telecommunication. It is us on expiry or after payment of the total amount to be	
This guarantee is governed by the laws of Armen	iia	
Place, date	Guarantor (Bank/Insurance Company)	