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# **MUNICIPAL INFRASTRUCTURE AND IDP HOUSING REHABILITATION PROJECT**

**Quarterly Report Year 2: 3<sup>rd</sup> Quarter (April - June 2012)**

**CONTRACT: AID-EDH-I-00-08-00027-00, TASK ORDER: AID-114-TO-11-00002**

**10 July 2012**

This document was produced for review by the United States Agency for International Development. It was prepared by Tetra Tech for the Municipal Infrastructure and IDP Housing Rehabilitation Project, Task Order number AID-114-TO-11-00002 under the USAID Architectural and Engineering (A&E IQC).



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July 10, 2012

Mr. Bradley Carr  
Water Irrigation and Infrastructure Advisor  
Office of Economic Growth  
US Agency for International Development  
11 George Balanchine Street  
Tbilisi, 0131 Georgia

Re: Quarterly Report Year 2: 3<sup>rd</sup> Quarter (April - June 2012)

Dear Mr. Carr:

This report is being submitted to you in accordance with the requirements of Task Order no. AID-114-TO-11-00002 of Contract AID-EDH-I-00-08-00027-00. It provides Tetra Tech's Quarterly Report Year 2: 3<sup>rd</sup> Quarter (April - June 2012) for the Municipal Infrastructure and IDP Housing Rehabilitation Project.

Very truly yours,

A handwritten signature in black ink that reads 'Jeffrey W. Fredericks'.

Jeffrey W. Fredericks, P.E., PhD  
Chief of Party  
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CC: USAID (George Kokochashvili); MDF (Kartlos Gviniashvili); Tetra Tech (Firouz Rooyani, Dean White, Tom Chicca, Ilia Eloshvili)

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## ACRONYMS

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A&E	Architect & Engineer
BEO	USAID Bureau Environmental Officer
BOQ	Bill of Quantities
CCN	Cooperating Country National
CO	USAID Contracts Office
COP	Chief Of Party
COTR	USAID Task Order Cognizant Technical Officer
DB	Design-Build
DBB	Design-Bid-Build
DCC	Document Control Center
DCOP	Deputy Chief Of Party
DCQ	Design Quality Control
EA	Environmental Assessment
EC	MDF Tender Evaluation Committee
EH&S	Environmental, Health and Safety
EOI	Expression of Interest
ESS	Environmental Scoping Statement
EU	European Union
FBO	Federal Business Opportunities ( <a href="https://www.fbo.gov/">https://www.fbo.gov/</a> )
G&A	General & Administrative
GEL	Georgian Lari
GMIP	Municipal Infrastructure And IDP Housing Rehabilitation Project (the project)
GoG	Government of Georgia
GUWC	Georgian United Water Company
HH	Household
HO	Home Office
HOA	Home Owners Associations
ICB	International Competitive Bidding
IDP	Internally Displaced Persons
IEE	Initial Environmental Examination
IFB	Invitation for Bid
IL	Implementing Letters
IQC	Indefinite Quantities Contract
KAV	Kavgiprotransi-Mg Ltd
LOE	Level of Effort
LTTA	Long Term Technical Assistance
MDF	Municipal Development Fund
M&E	Monitoring and Evaluation
MEO	USAID/Georgia Mission Environmental Officer
MOA	Ministry of Agriculture
MRA	Ministry of Refugee Affairs
MRDI	Ministry of Regional Development and Infrastructure
M80	Mshenebeli 80” Ltd (Contractor)
NEO	New Economic Opportunities (USAID Project)
NGO	Non-Government Organization
NTP	Notification to Proceed
O&M	Operation and Maintenance
PEA	Programmatic Environmental Assessment
PMC	Project Management Committee
PMP	Performance Monitoring Plan
QA/QC	Quality Assurance/Quality Control

QBS	Quality-Based Selection
RFP	Request for Proposals
SOW	Scope of Work
SSMMP	Site Specific Mitigation & Monitoring Plans
STTA	Short Term Technical Assistance
TA	Technical Assistance
TBD	To Be Determined
TOR	Terms of Reference
Tt	Tetra Tech Inc.
USAID	United States Agency For International Development
USG	U.S. Government
WB	World Bank
WS	Water Supply

## **I. EXECUTIVE SUMMARY**

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### **I.1 Authorization**

Under the United States Agency for International Development (USAID)/ Caucasus – Municipal Infrastructure and IDP Housing Rehabilitation Project (GMIP) Contract No. AID-EDH-I-00-08-00027-00 Order No: AID-I14-TO-I1-00002, Tetra Tech (Tt) is responsible for providing support to monitor current processes and practices, identify and mitigate areas of risk, and carry out oversight and quality control efforts to ensure that selected municipal and IDP infrastructure projects are implemented effectively and in accordance with U.S. and Georgian standards and regulations.

The period of performance for the contract is May 23, 2011– November 22, 2013.

### **I.2 Purpose of Report**

The purpose of this report is to present the progress of the major activities during Year 2 Quarter 3 (April – June 2012), indicating any problems encountered and steps taken to resolve them or proposing remedial actions as appropriate. The report identifies any problems, delays, or adverse conditions that materially impair Tetra Tech’s ability to meet the requirements of the contract.

### **I.3 Components**

The project includes three major components and two subcomponents:

1. Component 1: Municipal Infrastructure
2. Component 2: Rehabilitation of Irrigation Infrastructure
3. Component 3: IDP Durable Housing
  - Subcomponent 1: Provide Water and Sanitation Upgrades for IDP Cottage Housing for IDPs from the August 2008 Conflict
  - Subcomponent 2: Provide Durable Housing Solutions for IDPs from 1990s Conflict

### **I.4 Summary**

GMIP has completed 13 months of the 30 month contract (40%) and expended 39% of the total USD 4.77 million budget.

During this reporting period, Tetra Tech concentrated on assisting Municipal Development Fund (MDF) and USAID in:

- Finalizing project selection for the Municipal Infrastructure subprojects, finalizing and issuing of a DB bid document for the 6 road sub-projects, issuing of expression of interest and preparation of TOR for design of Dusheti Flood Protection subproject, and preparation of the DB bid document for Gori Water Supply subproject.
- Evaluation and selection of contractor, mobilization of Tetra Tech oversight and MDF construction management teams, and start of work for the DB Irrigation contract.
- Finalizing the works to be carried out for water supply upgrades and initiating a study on alternatives for determining the recommended sanitary improvements for the cottage settlements.
- Conducting a “Concept Study” on options for construction of new IDP Housing.
- Issuing an expression of interest for the design of unoccupied Hospitals (8) and occupied Buildings (28) for rehabilitation as IDP durable housing; and preparation of the TOR for the design of the Hospitals (8).
- Evaluation and selection of a contractor, mobilization of Tetra Tech oversight and MDF construction management teams, and start of work for the DB contract for the 10 unoccupied IDP buildings.

- Submittal of Environmental clearances that included addendum to the Roads EA for Gorijvari Road and Pushkin Street; scoping statement for Flood/River Bank Protection; the IEE Negative Determination with conditions for Gori internal water supply; and the Programmatic Environmental Assessment for IDP Durable Housing to account for hospitals and water supply & drainage for the cottage settlements.
- Completion of the GAP analysis on GMIP's capacity to carry out construction/project management & supervision
- Preparation of a QA/QC Plan and a Health & Safety Plan.

Tetra Tech staff have daily communications with USAID and MDF and attend regular semi-weekly meetings with USAID and MDF.

There were several special events including a Procurement Outreach Event on Roads, a Construction Daily Site Inspection Workshop, a Pre-work Conference and a separate Environment and Health & Safety Training for the 10 IDP buildings contract, and a Pre-work Conference for the Irrigation contract.

Tetra Tech staff accompanied the USAID COTR and MRA Deputy Minister on a 3 day field visit to investigate possible locations for new building construction for IDP durable housing (April 24-26); the USAID Mission Director on visit to Oni Roads Project (May 17); USAID BEO and MEO on a site visit to a Cottage Settlement and Gorijvari road subproject site (24 May); USAID COTR and EU Project Manager on a visit to several Cottage Settlements (June 4); and the MRA Minister on visit to "Medical Center" of Bagdadi, Kakhiani Street #28, Imereti (June 29).

Tetra Tech hired two additional local long term staff: a Regional Construction Over-Site Engineer for Kutaisi and a Document Control Manager.

DCOP attended the NEO Local Government Capacity Building Training on Housing Owners Association Issues workshop held in Chakvi. Tt Staff also attended the Environmental Compliance and Sustainability Procedures for USAID A/CORs and Implementers.

Reports/Deliverables for the Reporting Period included:

- Weekly reports
- GMIP Procurement Integrity Summary Report
- Quarterly Report Year 2: 2<sup>nd</sup> Quarter (January - March 2012)
- Gap Analysis in GMIP Construction Management Practices
- Health and Safety Plan
- Construction Management Guidelines and QA/QC Plan
- Project Selection Report for Component I – Rehabilitation of Municipal Infrastructure
- Concept Study – A Proposed USAID Funded New IDP Housing Subproject
- Evaluation of proposal for ICB No: USAID/W/ICB/02-2012: Rehabilitation Works for Tiriponi and Saltvisi Irrigation Systems
- GMIP Due Diligence Report on Construction Contractor Mshenebeli 80” Ltd
- Environmental Assessment Roads Addendum for Gorijvari & Pushkin St.
- GMIP Component I Municipal Infrastructure Flood Protection Environmental Scoping Statement
- Programmatic Environmental Assessment (PEA) for IDP Durable Housing Activity (Water Supply & Drainage for Cottage Settlements)
- Initial Environmental Examination Amendment for Gori Internal Water Supply

## 2. PROGRESS OF MAJOR ACTIVITIES/DELIVERABLES

Activities carried out during the report period included:

### 2.1 Component I Municipal Infrastructure

#### 2.1.1 Project Selection

The final proposed list of the Municipal Infrastructure projects (9) has been prepared by MDF. Letters were received from municipalities prioritizing all subprojects. The MDF Supervisory Board met on 10 May 2012 to review. All subprojects have also been reviewed by Tetra Tech. Only the Oni Water Supply Head Works still remains under project preparation. This is being carried out by GUWC with GoG funding. A table with cost estimates and status is presented below:

#	Location	Subproject Name	Cost Estimate (USD)	Status
1	Dusheti	Installation of River Dushetiskhevi bank protection and restoration-rehabilitation of bridges over the river (1.5 km river reach; 2 box culvert bridges)	1,522,956	EOI for Design Submittal date 5 July.
2	Dusheti	Rehabilitation of town of Dusheti streets and storm drains (3 km, 8 streets)	723,045	Design-Build (DB) tender opening 9 July.
3	Kareli	Rehabilitation of Sogholasheni-Dvani motor road (12 km)	1,733,762	DB tender opening 9 July.
4	Mtskheta	Mtskheta Roads (10.4 km, 32 streets) Rehabilitation of roads for development of infrastructure in Mtskheta Municipality	1,253,081	DB tender opening 9 July.
5	Oni	Oni Roads (2.4 km, 5 streets) Installation of asphalt paving in Town Oni internal roads	708,083	DB tender opening 9 July.
6	Oni	Rehabilitation of water supply head works in town of Oni	924,000 <sup>1</sup>	Under design by GUWC
7	Gori	Rehabilitation of internal water supply and wastewater networks and installation of water meters in apartment buildings in Gori (122 buildings; 3765 apartments)	913,723	DB tender documents under preparation
8	Gori	Rehabilitation of Pushkin St. (0.92 km)	329,289	DB tender opening 9 July.
9	Gori	Rehabilitation of road to Gorijvari Saint George Church in Gori (1.45 km)	766,807	DB tender opening 9 July.
	Total		8,874,746	

Note: Oni WS MDF/GUWC estimate

Assistance was provided to USAID in preparation and compilation of letters on O&M capability of the five municipalities and Georgian United Water Company (GUWC) for a certification memo in accordance with the Section 611(e) of the Foreign Assistance Act of 1961 to ensure that the host country can effectively maintain and utilize the project. USAID approved the Section 611(e) for the proposed Municipal projects on 11 May.

Tetra Tech staff (Teimuraz Levanishvili and Mamuka Shaorshadze) completed site visits to the Municipalities to confirm status of underground utilities along the roads proposed for rehabilitation: Mtskheta (Apr 4) and Oni (Apr 11).

## 2.1.2 Design

GUWC prepared detailed designs of the “Rehabilitation of Internal Water Supply and Installation of Water Meters in Apartment Buildings” in Gori. The design drawings were reviewed and returned to MDF for clarification. Revised Gori Vertical WS were provided by GUWC (June 1). Because of question on flow rates and pressures in the external water supply system serving the project area, in order to allow a proper review of the design and to move forward with the subproject, MDF agreed to issue the tender as a design-build (DB) contract.

Designs were prepared for “Rehabilitation of Road to Gorijvari Saint George Church” in Gori by GEO LTD under contract to the Gori municipality. These were reviewed by Tetra Tech HO and returned to MDF for clarification and revision (1 June). Even after review by State Expertise questions remained. The subproject has been included in the Roads DB contract.

The design for rehabilitation of water supply head works in town of Oni is under preparation by design by GUWC. The original delivery date proposed by GUWC was 25 June; however only the conceptual designs have been prepared. Tetra Tech staff visited Oni (11 April) and have met with GUWC several times to discuss the subproject.

## 2.1.3 Procurement

USAID and MDF agreed that the following procurement delivery mechanisms would be used for the rehabilitation works:

Contract	Location	Project Name	Project Type	Contract Type	Status
1	Dusheti	Installation of River Dushetiskhevi bank protection and restoration-rehabilitation of bridges over the river	Flood Protection	Design-Bid-Build(DBB): 1.Design Solicitation 2.Construction Tender	EOI for Design Submittal date 5 July.
2	Oni	Rehabilitation of water supply head works in town Oni	Water Supply	DBB tender: 1.Design funded by others 2.Construction Tender	Under design by GUWC using non-project funds.
3	Gori	Rehabilitation of internal water supply and wastewater networks and installation of water meters in apartment buildings in Gori	Water Supply	DB Tender	DB tender documents under preparation
4	Gori	Rehabilitation of road to Gorijvari Saint George Church in Gori	Road	DB Tender. Lot #3 of Roads DB tender.	DB tender opening 9 July.
5	Gori	Rehabilitation of Pushkin St.	Road	DB Tender. Lot #3 of Roads DB tender.	DB tender opening 9 July.
6	Kareli	Rehabilitation of Sogholasheni-Dvani motor road	Road	DB Tender. Lot #3 of Roads DB tender.	DB tender opening 9 July.
7	Mtskheta/Dusheti	Mtskheta Roads/ Dusheti streets and storm drains	Road	DB Tender. Lot #1 of Roads DB tender.	DB tender opening 9 July.
8	Oni	Oni Roads (2.6 km)/ Installation of asphalt paving in Town Oni internal roads	Road	DB Tender. Lot #2 of Roads DB tender.	DB tender opening 9 July.

The status of the various Municipal Infrastructure procurements is as follows:

**1. Rehabilitation of Access Road of Village Gorijvari, Internal Roads in Towns of Gori, Mtskheta, Dusheti, Oni, and Municipal Road Sagolasheni – Dvani. ICB No: USAID/CW/ICB/03-2012**

DB bid documents were approved by USAID on 8 June. There are three separate lots. Lot 1 includes Mtskheta Roads/ Dusheti streets; Lot 2 includes Oni internal roads; and Lot 3 includes Gorijvari Road, Pushkin St., and Sogholasheni-Dvani motor road. The invitation for bids (IFB) was announced on 8 June and posted on Federal Business Opportunities (FBO). The pre-bid meeting was held at MDF on 25 June. Six firms attended. Four firms have requested bid documents. The bid opening date is 9 July.

**2. Preparation of the Detailed Engineering Design, Bidding Documentation Package and Provision of Design Inspection Services for Rehabilitation Works for Dusheti Gorge Flood Protection in Dusheti Town. USAID/C/QBS/03**

Draft Terms of Reference and Scope of Services (TOR) prepared by MDF were reviewed by Tetra Tech. The Expression of Interest for Consulting Services (EOI) was approved by USAID and posted on FBO on 22 June. Consultant Interest expressions are due not later than 5 July.

**3. Rehabilitation Works for Installation of Water metering and regulation valves of 122 Housing in Town Gori, "Kombinati Residence". ICB No: USAID/CW/ICB/04-2012**

The works will be carried out as a DB contract. Tender documents were prepared by MDF. They were reviewed by Tetra Tech and returned to MDF for final revision.

#### **2.1.4 Environmental**

The Environmental Assessment prepared by Tetra Tech for Municipal Road Rehabilitation was approved by USAID Bureau Environmental Office (BEO) in March 2012. An Addendum for Gorijvari Road and Pushkin Street in Gori Municipality was submitted to USAID on 17 May.

A single Environmental Scoping Statement (ESS) for the Rehabilitation of Dusheti Flood and Gori 26 May River Bank Protection projects was drafted and submitted on March 31. BEO comments were received on 20 June. These were addressed and returned to USAID on 25 June. The Environmental Assessment (EA) must include a hydrologic study. The study will be carried out by the consultant preparing the detailed engineering designs. It should be completed six weeks after the contract signing (August 2012). Tetra Tech will finalize the EA after receiving the Hydrologic Study Report.

At the request of USAID Tetra Tech prepared a draft IEE Negative Determination with conditions for Gori Internal Water Supply Improvements Project in Kombinati Settlement. This was submitted to USAID on 25 June.

## **2.2 Component 2: Rehabilitation of Irrigation Infrastructure**

### **2.2.1 Project Selection**

The proposed works for irrigation rehabilitation under GMIP was approved by the MDF Supervisory Board on 28 December 2011. The works include complete rehabilitation of Saltvisi Irrigation System main and distributary canals (46.6 km) serving 9,722 ha; and rehabilitation of Tiriponi Irrigation System main canal and secondary canals (72 km) including the Karbi head works up to the first crossing of occupied territory serving 8,500 ha. Subject to availability of funding, the critical/

significant facilities on Tiriponi main canal, after first crossing with occupied territories, may be added to originally suggested rehabilitation works.

Assistance was provided to USAID and MDF in preparation and compilation of a letter on O&M capability of Ministry of Agriculture. This letter is required to support a USAID certification memo in accordance with the Section 611(e) of the Foreign Assistance Act of 1961 to ensure the host country can effectively maintain and utilize the project. USAID approved the Section 611(e) for the Irrigation subproject on 11 May.

Draft PMP Irrigation baseline survey SOW was sent to USAID on 16 May. Statistical information on the project area was provided to USAID on 28 May.

### **2.2.2 Procurement**

USAID and MDF agreed that a DB contract would be used for the rehabilitation of the irrigation works. The status of the Irrigation procurement is as follows:

#### ***Rehabilitation Works for Tiriponi and Saltvisi Irrigation Systems ICB No: USAID/W/IICB/02-2012***

The bid opening date was March 26. Two firms submitted proposals: OJSC “Akkord Industry Construction Investment Corporation” and “Mshenebeli-80” Ltd. The low bid was submitted by “Mshenebeli 80” Ltd for a total cost of GEL 13,774,634.15 or USD 8,348,263. Tt reviewed and prepared a memo on the bid proposals. MDF Evaluation Committee (EC) met to review the proposal on 24 April. A follow-up meeting was held on 1 May. “Mshenebeli 80” Ltd was the lowest “Evaluated Responsive Qualified Bidder”. The MDF evaluation report was sent to USAID on 3 May. Draft Contract documents were sent to USAID on 17 May. Notification to Award of the irrigation contract was approved by USAID on 23 May. Final contract was approved by USAID 28 May. Contract was signed on 31 May. Signed Contract was approved by USAID on 4 June. The final price of the contract cannot exceed 13,365,000 or USD 8,100,000. This is the ceiling in the USAID/MDF Implementation Letter budget for irrigation works.

### **2.2.3 Design/Construction**

MDF mobilized their Design & Construction Management team that included two MDF staff and four staff from MOA Irrigation Company. Zviad Parkadze was assigned as the MDF Project Manager. Otar Magalashvili was assigned as the Tetra Tech Irrigation Contract Manager and Vasil Apkhazava as the Tetra Tech QA/QC Engineer. Several work sessions on QA/QC for Site Supervisors were conducted including a formal Workshop on Construction Supervision held at the Radisson Blu Iveria on 19 April, a pre-work session meeting on 1 June and again on 6 June. Construction management forms were prepared with assistance from Tt. Tetra Tech established its document control center for the contract on 1 June. USAID approved procurement of equipment for site-supervisors. The procurement is ongoing. Tetra Tech will purchase equipment for MOA supervisors under the Tetra Tech budget (USD 2,500) and MDF will purchase for MDF supervisions using GMIP funds (USD 1,500).

Advanced payment was made to the contractor (M80) on 6 June. USAID/TT/MDF/M80 CM official pre-work meeting was held on 13 June at the Radisson Blu Iveria. Pre-design meeting was held on 15 June at MDF. Topographic surveys and designs have started.

The status of the contractor submittals follows:

Item	Submittal	Received	Reviewed
1	Mobilization Plan	June 22	June 24
2	Initial QC Plan	June 22	June 24
3	Preliminary schedule	June 22	June 24

## 2.2.4 Environmental

The Environmental Assessment prepared by Tetra Tech for Irrigation Rehabilitation Activities was approved by BEO on March 15.

## 2.3 Component 3: IDP Durable Housing Subcomponent 1: Provide Water and Sanitation Upgrades for IDP Cottage Housing

### 2.3.1 Project Selection

The final selection of the works to be carried out for the cottage housing is still on going. USAID remains committed to providing both water and sanitary upgrades to the cottage settlements where feasible and needed.

The current proposal assumes that USAID will fund external water supply improvements for 8 communities, drainage for 6 communities, internal water supply hook-ups for 10 communities, shower and toilet systems for 7 communities, and waste water treatments systems and collection systems for 7 communities currently only those where groundwater levels >2 meters. The list of cottage communities and proposed works is shown below:

#	Location	# of HH	# of Persons	Water Supply	Drainage	Inside water hook-up	Sewage system (network, septic tank w Infiltration field)	Shower and toilet building
1	Akhalsopeli	100	350	Yes	Yes	Yes	Yes	Yes
2	Mokhishi	58	220	Yes		Yes	Yes	Yes
3	Skra	86	312	Yes		Yes	Yes	Yes
4	Karaleti	480	1,644		Yes			
5	Berbuki	134	460	Yes		Yes		
6	Shavshvebi	177	586	Yes		Yes	Yes	Yes
7	Khurvaleti	139	460	Yes	Yes	Yes	Yes	Yes
8	Teliani	54	164		Yes	Yes		
9	Metekhi	35	128	Yes		Yes		
10	Tsilvani	400	1,093	Yes	Yes	Yes	Yes	Yes
11	Frezeti	300	721		Yes	Yes	Yes	Yes
	<b>Total</b>	<b>1,963</b>	<b>6,138</b>	<b>8</b>	<b>6</b>	<b>10</b>	<b>7</b>	<b>7</b>

During the report period Tetra Tech staff made numerous visits to the cottage settlements including a visit to the cottage settlements of Berbuki, Shavshvebi, and Khurvaleti with Brad Carr (USAID) and Caroline Stanford (Project Manager-EU) on 4 June.

Because of limited O&M funds it was decided to restrict the wastewater treatment options to on-site treatment using a standard septic tank/infiltration system. Because of high water tables (depth to water table <1 m) two of the cottage communities were excluded. Tetra Tech prepared and submitted to MDF designs and BOQs for the septic tanks and infiltration fields. Response letters received from MDF on 10 May from Municipalities were negative on providing land for infiltration

fields. To resolve this issue USAID has requested that Tetra Tech carry out an “Alternatives Study” to determine the most appropriate sanitation/waste water treatment technology to be used for the cottage settlements. Tetra Tech staff visited four Biotal package plant sites (activated sludge technology): Tsinamdzhvriantkari Village (100m<sup>3</sup>/day), Didi Lilo (40m<sup>3</sup>/day), and two sites near Gori (10 & 20 m<sup>3</sup>/day). Water quality tests of the plants were conducted by Scientific Research Firm “GAMMA”. Results indicated that Biotal performed as designed. Jim Gallup, Expat Water Supply/Waste Water Engineer, began a STTA assignment on 23 June to work on the study.

Alternatives being considered include:

- Septic Tank and Infiltration Drain Field Treatment
- Oxidation Pond Wastewater Treatment
- Aerated Lagoon Treatment
- Latrines
- Activated Sludge Treatment

USAID agreed to use GMIP funds to provide external water supply and drainage improvements based on designs prepared under a World Bank/European Union funded contract with HOLINGER International Consultants (Switzerland). Tetra Tech reviewed the Holinger Water Supply design procedures. Water quality tests (9 settlements/16 tests) were conducted. One settlement, Shavshevbi, was found to have high nitrate concentrations (NH<sub>3</sub>>105 mg/l) in their water supply source. MDF is exploring possible alternative mitigation measures and/or water sources for Shavshevbi. It was agreed with MDF (10 May) that the Water Supply component will be bid as a DBB construction contract.

Tetra Tech also continued to investigate options for providing drainage. Although it was agreed that the surface drainage channels would not be lined, USAID was concerned about culverts at entrance to cottage driveways. Recommendations with options were sent to MDF (June 12).

At the request of USAID Tetra Tech reviewed options for layout of toilet/shower facilities & solar water heaters. It was recommended that solar heaters be supplied.

Tetra Tech staff (James Hayden, Givi Varduashvili, Teimuraz Levanishvili) also assessed the mold issue prevalent in many of the cottages. A short note was prepared and sent to USAID (25 June) with a number of low cost recommendations including procedures for cleaning of mold, providing vents, improved plastering methods, and improved drainage.

### **2.3.2 Procurement**

USAID and MDF agreed that a construction contract be issued for the water supply component and a single DB contract be prepared for the drainage and sanitary upgrades. Preparation of the tender documents for the water supply construction contract was started. The cost for the water supply construction contract is not expected to exceed USD 700,000.

### **2.3.3 Environmental**

The Programmatic Environmental Assessment (PEA) for IDP Durable Housing including the cottage communities prepared by Tetra Tech was approved in February 2012. Because of the addition of the water supply and drainage components USAID requested that the PEA be revised to address these proposed works. The updated PEA to include consideration of water supply and drainage improvements for IDP cottage settlements was approved by BEO on 19 April.

## 2.4 Component 3 IDP Durable Housing Subcomponent 2: Provide Durable Housing Solutions for IDPs

### 2.4.1 Project Selection

Ten (10) buildings, eight (8) hospitals and 28 collective centers have been selected for rehabilitation. The selection process for other potential buildings to be rehabilitated is ongoing. The possibility of constructing new apartment buildings is also being considered per GOG request. USAID and Tt, in coordination with MRA and MDF investigated potential sites for construction of the new buildings. A new building Concept Study was conducted by Tetra Tech.

The status of the buildings selected for rehabilitation is listed below:

Building Type	Buildings		Apartments		Total Cost		Cost/ apartment	Total Building Area	Cost/ m <sup>2</sup>
	#	%	#	%	USD	%	USD	m <sup>2</sup>	USD
Collective centers <sup>1</sup>	28	61	973	46	10,776,242	45	11,075	49,702	217
Unoccupied buildings <sup>2</sup>	10	22	348	16	4,757,422	20	13,671	18,220	261
Empty Hospitals <sup>3</sup>	8	17	813	38	8,617,870	36	10,594	37,469	230
<b>Total</b>	<b>46</b>	<b>100</b>	<b>2,134</b>	<b>100</b>	<b>24,151,533</b>	<b>100</b>		<b>105,391</b>	

Note: 1- Feasibility Cost (GEO LTD) without external works; 2- Tender Cost (Mshenebeli 80 Ltd); 3-USD 230/m<sup>2</sup> without external works

MRA continued to propose addition buildings for rehabilitation as IDP housing. Tt conducted a site visit to two occupied buildings in Tskaltubo on Apr 10 and recommended that they be included for rehabilitation. Another site visit with MRA was made to an unoccupied hospital in Tetri Tskharo on 4 May. Tt recommended against rehabilitation because of limited employment opportunities in the area and the limited availability of domestic water supply. MRA proposed 4 additional buildings in Kutaisi (3) and Tskaltubo (1) on June 19. Tt visited these building (26-28 June). The buildings are structurally sound, but will require considerable rehabilitation. Two of the buildings are occupied with IDPs and two have operational medical clinics. At the request of USAID and MRA, Tt is preparing an assessment report on all the unoccupied buildings that were rejected by GMIP after technical assessment.

At the request of USAID, Tt conducted a Concept Study on New Buildings. The purpose of the study was to provide USAID and MRA with information on options for construction of new IDP Housing. The study was conducted by Michael McGovern, Tt expat Sr. Construction Manager /Engineer with assistance from Tt local and HO staff. USAID (Brad Carr), MRA (Valeri Kopaleishvili, Deputy Minister) and Tt staff conducted a field trip to Batumi, Poti, & Kutaisi to review new building sites (Apr 24-26). The "Concept Study" study was submitted to USAID on June 1. The recommended site for the new construction was Kutaisi. The average cost per building was estimated at \$920,000/building (\$836/m<sup>2</sup>; \$28,758/apartment).

MRA provided a series of clearance letters regarding legal status of the 10 unoccupied buildings selected for rehabilitation as IDP housing. Two Hospitals located in Zestafoni are still occupied under a lease that expires in September 2012. Two local families living in Former Police Building in Kutaisi are to be relocated to allow the contractor to start work.

## 2.4.2 Procurement

USAID and MDF agreed that the following procurement delivery mechanisms would be used for the rehabilitation works:

### **1. Preparation of the Detailed Engineering Design, Bidding Documentation Package and Provision of Design Inspection Services for Rehabilitation Works for IDP Housing for Eight (8) Former Hospital Buildings: USAID/C/QBS/01 (8 bldgs.)**

Rehabilitation Works of Eight (8) Former Hospital Buildings for IDP Housing will be implemented as a design-bid-build contract (DBB). The Expression of Interest for Consulting Services (EOI) for design was approved by USAID and posted on FBO on 22 June. Consultant Interest expressions are due not later than 5 July. Tetra Tech received a draft of the MDF Request for Proposals (RFP) and Terms of Reference & Scope of Services (TOR) on 21 June and returned it for revision to MDF on June 26.

### **2. Preparation of the Detailed Engineering Design, Bidding Documentation Package and Provision of Design Inspection Services for Rehabilitation Works for IDP Housing for Twenty-Eight (28) Buildings. USAID/C/QBS/02 (28 bldgs.)**

Rehabilitation Works of the 28 occupied collective centers for IDP Housing will be implemented as a DBB contract. The Expression of Interest for Consulting Services (EOI) for design was approved by USAID and posted on FBO on 22 June. Consultant Interest expressions are due not later than 5 July.

### **3. Rehabilitation Works for IDP's Housing Contract No. USAID/W/ICB/01-2011 (10 Bldgs.)**

Per request of MRA, it was agreed that the initial tender would be for 10 unoccupied buildings. They were signed off by the Mission Director on December 29. MDF issued the advertisement for tender on January 3. A pre-bid meeting was held on January 18. The proposal opening date was February 10. Only one firm, Mshenebeli 80 Ltd, submitted a proposal. The EC met on February 17 to evaluate the technical proposal. Mshenebeli 80 Ltd was determined as the "lowest evaluated responsive qualified bidder" for award of the contract. The total Contract amount was GEL 7,849,746 (USD 4,757,422). At the request of USAID, Tetra Tech conducted a capability and capacity check of the selected contractor Mshenebeli 80 Ltd. This was submitted to USAID on April 5. There were no findings that precluded the bid from being awarded. The contract was awarded on 1 May. The draft contract was sent to USAID on 16 May. MDF/MRA provided Public registry Clearance 10 buildings to clear occupied buildings on May 24. Contract was approved by USAID and signed on May 25. USAID approval was received on the signed contract on 1 June.

## 2.4.3 Design/Construction

The status of the design/construction works follows:

### **1. Rehabilitation Works for IDP's Housing Contract No. USAID/W/ICB/01-2011 (10 Bldgs.)**

Avtandil Jakeli was assigned as the MDF Project Manager. Teimuraz Levanishvili (Housing Rehabilitation Manager) was assigned as the Tetra Tech Contract Manager. He will be assisted by Koba Tsiramua (Regional Engineer Kutaisi) and Avtandil Baramia (Regional Construction Over-Site Engineer Kutaisi). Vasil Apkhazava was assigned as the Tetra Tech QA/QC Engineer.

Advance payment was made on June 1. A pre-work conference was held on June 5 at the Radisson Blu Iveria, Tbilisi. The purpose of the meeting was to specify Contractual Requirements and Obligations to be carried out by the Employer and Contractor. USAID, MDF, Mshenebeli 80, and Tetra Tech participated. The Pre-Design meeting was held on June 7 at MDF. At the request of

MDF, Tetra Tech sponsored an Environment & Social and Health & Safety Training (E, H&S) on June 25.

The contractor Mshenebeli 80 Ltd has begun mobilization. Designs (50%) were submitted for 3 of 10 buildings. Construction activities were started on one building, the former Region III Police building in Kutaisi.

The status of Contractor submittals follows:

Item	Submittal	Received	Reviewed
1	1st Variation order	June 14	June 14
2	Mobilization Plan	June 22	June 25
3	Initial QC Plan & Final QC Plan	June 22	June 25
4	Program schedule	June 22	June 25
5	50% design for 3 buildings (Georgian)	June 26	

Jim Hayden, STTA Expat Construction Engineer, began work in Kutaisi on 26 June assisting MDF and the contractor with mock-up training and identifying mock-up sites.

#### **2.4.4 Environmental**

The PEA was approved by BEO on March 1.

#### **2.5 MDF Financial Review**

USAID is implementing their agreement with MDF through two implementation letters (IL). Included in the ILs are the Cash Advance/Liquidation Policies and Procedures to be followed by MDF in receiving and liquidating advances. Under Tetra Tech's contract with USAID, Tetra Tech is responsible for the review and approval of all MDF advances and liquidation of these advances.

During the report period Tetra Tech reviewed and cleared the liquidation for advances #10, #11, #12, #13.

Through the period ending June 2012, a total of USD 1,532,106 or 2.92% of the total MDF budget has been disbursed. This includes the advance payment for the two DB contracts of Rehabilitation Works for IDP's Housing Contract (10 Bldgs.) for USD 482,349 and Rehabilitation Works for Tiriponi and Saltvisi Irrigation Systems for USD 816,672.

#### **2.6 Training/Workshops/Events**

##### **2.6.1 Special Events**

Tt staff (Koba Tsiramua, Avtandil Ibaramia) accompanied the USAID Mission Director on a visit to Oni Roads Project on May 17.

Tt staff (Koba Tsiramua) accompanied MRA Minister on visit to "Medical Center" of Bagdadi, Kakhiani Street #28, Imereti on June 29.

##### **2.6.2 TrainNet**

Tetra Tech completed and submitted the USAID TrainNet quarterly report.

##### **2.6.3 Road Procurement Outreach Event**

A procurement outreach event on roads was held at Radisson Blu Iveria, Tbilisi on April 23, 2012. The purpose of the event was to provide information, increase awareness and encourage

competition for potential upcoming bid participants on the GMIP road projects. Nine firms attended: “Tsekuri Ltd”, “Ltd Mshenebeli 80”, “Ltd Black Sea Group”, “Watkinson LLC”, “Ltd Iberia Tech”, “Ltd Serpantini”, “Eptisa”, “New Energy”, and “Akkord Georgia”.

#### **2.6.4 MDF GMIP Construction Daily Site Inspection Workshop**

A Construction Daily Site Inspection Workshop was held at Radisson Blu Iveria, Tbilisi on 17 April. The purpose of the workshop was to present to MDF and Ministry of Agriculture key construction management staff the need for and benefits of overall full time on-site inspection generally and also in outlining the elements of the inspector’s job duties. There were fourteen key sessions. The workshop was presented by Mike McGovern, Tt Expat Sr. Construction Manager /Engineer. There were 31 participants (1 female) to include USAID (2), MDF (9), MOA (5) and Tetra Tech (15).

#### **2.6.5 Environmental Compliance and Sustainability Training**

MDF (1) & Tt Staff (2) attended Environmental Compliance and Sustainability Procedures for USAID A/CORs and Implementers” held at USAID on May 23.

#### **2.6.6 Pre-Work Meeting for Rehabilitation Works for IDP’s Housing Contract (10 Buildings)**

A Pre-work Conference was held for the for the 10 IDP buildings contract on June 5 at Radisson Blu Iveria, Tbilisi. The purpose of the meeting was to specifying contractual requirements and obligations to be carried out by Employer and Contractor in IDP Building Rehabilitation Project (Building 10). There were 33 participants (3 females) including USAID (4); MDF (11), Ltd Mshenebeli 80 (6), and Tetra Tech (13)

#### **2.6.7 Pre-Work Meeting for Rehabilitation Works (Irrigation Contract)**

A Pre-work Conference was held for the Rehabilitation Works for Tiriponi and Saltvisi Irrigation Systems Contract on June 13 at Radisson Blu Iveria, Tbilisi. The purpose of the meeting was to specifying contractual requirements and obligations to be carried out by Employer and Contractor in the Irrigation Rehabilitation Project. There were 29 participants (4 females) including USAID (3); MDF (4), Ltd Mshenebeli 80 (9), Melioration Company of Georgia (2) and Tetra Tech (11 ).

#### **2.6.8 Environment & Social and Health & Safety Training (10 Building Contract)**

Environment & Social and Health & Safety Training (E,H&S) was held for MDF and Ltd Mshenebeli 80 staff on June 25 at the Holiday Inn, Tbilisi. The purpose of the training was to provide awareness and instructions on critical E, H&S procedures to be followed during the construction process. There were 28 persons attending (1 female) including staff from USAID (2), MDF (5), M80 (13), and Tt (8). The workshop was organized by Mamuka Gvilava, Tetra Tech’s Environmental Consultant, and Mamuka Shaorshadze, Tetra Tech’s Environmental, Health & Safety Specialist.

### **2.7 Project Management/Coordination**

#### **2.7.1 General**

Tetra Tech staff have daily communications with USAID (Brad Carr, COTR and George Kokochashvili, Engineering Specialist) and MDF (Kartlos Gviniashvili, Program Manager). Gocha Lobzhanidze (USAID) has joined the USAID team and actively participated in GMIP construction management and oversight activities. Regular weekly meetings were held with the Tetra Tech staff and USAID at the Tetra Tech Office. Tetra Tech also participated in the regular weekly USAID/MDF coordination meetings held two times a week alternately at MDF and Tetra Tech offices.

#### **2.7.2 Coordination with Other Donors and Technical Assistance Activities**

Tetra Tech staff participated in the following meetings/field trips during the quarter:

- Tt Expat Sr. Construction Manager/Engineer (Mike McGovern) debriefed on Gap Analysis with MDF on April 11 and USAID on Apr 12.
- Tt staff met with USAID, MRA, and MDF to discuss cadastral status of buildings proposed for IDP Housing at MRA on 18 April.
- Tt staff (Givi Varduashvili, Senior Civil Engineer) attended New Economic Opportunities (NEO) Project Tenant Association Meetings held in the cottage settlements of Khurvaleti (Apr 20) and Berbuki (Apr 25).
- Tt Environmental consultant (Mamuka Gvilava) met with NEO to discuss EA requirements for their river protection works on May 4.
- COP and DCOP attended the USAID Partners Meeting held on May 23.
- Tt environmental and engineering personnel accompanied USAID staff, William Gibson (BEO), Jeffrey Ploetz (E&E/EG), and Marian Ubilava (MEO/PMS/E&E) on 24 May to Khurvaleti IDP Settlement and Gorijvari Road Site.
- Tt staff accompanied Brad Carr (USAID) and Caroline Stanford (Project Manager-EU) on a visit to IDP Cottage Settlements: Berbuki, Shavshvebi, and Khurvaleti on June 4.
- DCOP (Ilia Eloshvili) participated in meetings held with USAID and NEO (June 15) & MRA (June 21) to discuss settlement and resettlement issues for IDP Durable Housing Building rehabilitation.
- DCOP (Ilia Eloshvili) attended NEO Local Government Capacity Building Training on HOA/TA issues held in Chakvi (June 27 to 29)

### **2.7.3 Quality Assurance/Quality Control**

COP participated in a teleconference Tetra Tech Home Office project review (PEEAC) on May 23 with Susanne Woods (Vice President), Susan DeMarre (Senior Project Analyst), and Brian (Sr. Administrative Assistant).

Mike McGovern, P.E., Expat Sr. Construction Manager /Engineer, carried out a STTA assignment (March 1 to May 14) to provide technical support to review alternatives and provide recommendations for Construction Management Supervision under GMIP.

Jim Hayden, Tt Expat Construction Engineer, began a STTA assignment (June 16 to July 18) to provide QA/QC support and oversight to the Provide technical support to assist in QA/QC for Component 3 Subcomponent 2: Provide Durable Housing Solutions for IDPs from 1990s Conflict.

Jim Gallup, P.E., PhD, Senior Environmental Specialist, began a STTA assignment (June 23 to July 6) to provide technical support to prepare an Alternative Study to determine the most appropriate sanitation/waste water treatment technology to be used for the cottage settlements.

Tetra Tech (Mike McGovern) prepared and submitted to USAID a Gap Analysis in GMIP Construction Management Practices.

Tetra Tech (Mike McGovern) prepared and submitted to USAID a “Construction Management Guidelines and Quality Assurance/Quality Control Plan”. The document was translated and distributed to MDF.

Tetra Tech (Mike McGovern) prepared and submitted a Safety Plan submitted to USAID.

Tetra Tech hired a long term local Document Control Manager (Anna Urotadze) and Regional Construction Over-Site Engineer (Avtandil Baramia). A short term local finance management specialists (Demna Sakhltkhutsishvili) was hired to replace Sergo Gviniashvili.

## 2.7.4 Branding Implementation Plan and Marking Plan

Photos were taken at all pre-bid, site visits, and bid openings for use in preparation of future success stories.

## 2.8 Reports and Deliverables

The following reports and deliverables were submitted during the quarter:

#	Report on Deliverables April – June 2012	Date
1.	Weekly Status Reports	Weekly
2.	GMIP Component I Municipal Infrastructure Flood Protection SS (Draft)	Apr 2
3.	GMIP Procurement Integrity Summary Report	Apr 2
4.	GMIP Due Diligence Report Construction Contractor M80	Apr 2
5.	Draft MRA Letter on Status of Collective Centers (Occupied buildings)	Apr 2
6.	Site Visit Report (Tkibuli – Imereti Region) more idle buildings for rehabilitation	Apr 3
7.	Quarterly Report - Qtr Yr 2 (January - March 2012)	Apr 10
8.	Programmatic Environmental Assessment (PEA) for IDP Durable Housing Activity (Water Supply & Drainage for Cottage Settlements)	Apr 10
9.	Evaluation of proposal for ICB No: USAID/W/ICB/02-2012: Rehabilitation Works for Tiriponi and Saltvisi Irrigation Systems	Apr 15
10.	Gap Analysis in GMIP Construction Management Practices	Apr 18
11.	MDF Financial Summary	Apr 23
12.	Workshop Report on MDF GMIP Procurement Outreach Event (23 April 12)	May 2
13.	Bid Evaluation Report for Irrigation	May 3
14.	Project Selection Report for Component I – Rehabilitation of Municipal Infrastructure	May 3
15.	Report on Construction Management Support Workshop (19 March, 2012)	May 5
16.	Report on MDF GMIP Construction Daily Site Inspection Workshop (17 April, 2012)	May 5
17.	Expression of Interest for Consulting Services (preparation Detailed Engineering Design and providing Design Construction Support Services for the rehabilitation works for the eight former hospital buildings)	May 6
18.	Health and Safety Plan	May 10
19.	PEA Water Supply Revision	May 10
20.	Revised Quarterly Report (Qtr Yr 2, January-March, 2012)	May 11
21.	Trip Report (McGovern Assignment Report)	May 14
22.	SPN English IDP's Housing Design 28 (Expression of Interest for Consulting Services)	May 16
23.	Contract for Rehabilitation Works for IDP Housing USAIDWICB01-2011	May 16
24.	Site Visit Report (Kvemo Kartli Region, Tetrtskharo)	May 16
25.	SOW of Irrigation Survey - Performance Monitoring Plan	May 16
26.	Irrigation Contract Draft - USAID-W-ICB-02-2012	May 17
27.	Door Sign for approval	May 18
28.	Revised Gap Analysis	May 20
29.	EOI English Dusheti River Bank Protection	May 22
30.	Construction Management Guidelines and QA/QC Plan	May 25
31.	Contract for 10 Buildings - USAIDWICB01-2011 (5.25.12)	May 25
32.	Bidding Document for Roads (Lot 1,2,3)	May 29
33.	Memo on Phone call with BEO (5.24.12)	May 29
34.	Cottage Nitrate Issue Memo	May 30
35.	Revised Gap Analysis	May 31
36.	Site Visit Report of Pushkin St. (Gori)	June 1
37.	Rehabilitation of Gorijvari Access Road – Option II Profile Revision	June 1
38.	Concept Study – A Proposed USAID Funded New IDP Housing Subproject	June 1
39.	Letter Cottage Yard Entry Culverts	June 1
40.	IFB for the Roads Tender	June 6
41.	Memorandum of Pre-Work Meeting – Building 10	June 12
42.	Trip Report Botal WWTF	June 12

#	Report on Deliverables April – June 2012	Date
43.	New Building Concept study - (Draft - Tt revised)	June 14
44.	GMIP Component I Municipal Infrastructure Flood Protection Environmental Scoping Statement	June 15
45.	GMIP Financial Summary #13	June 16
46.	EA Roads Addendum for Gorijvari & Pushkin St.	June 17
47.	New Building Concept Study revised	June 17
48.	MOA Construction Management Support Costs	June 18
49.	Accrued expenses for the period Apr - Jun 2012	June 18
50.	Concept Study – A Proposed USAID Funded New IDP Housing Subproject (Draft – 22 May, 2012)	June 19
51.	EOIs designs for: Dusheti Gorge Flood Protection in Dusheti Town; IDP Housing for Eight (8) Former Hospital Buildings; IDP Housing for Twenty-Eight (28) Buildings	June 21
52.	Environmental Assessment Addendum for Roads	June 22
53.	Concept Study - A Proposed USAID Funded New IDP Housing Subproject (22 May, 2012)	June 22
54.	Initial Environmental Examination Amendment for Gori Internal Water Supply	June 24
55.	Cottage Settlement Mold Assessment (Cottage settlement site visit report)	June 25
56.	Revised GMIP Component I Municipal Infrastructure Flood Protection SS	June 25
57.	TrainNet Report	June 25

### 3. ACTIVITIES PLANNED FOR NEXT QUARTER

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Activities planned for next quarter include:

#### 3.1 Component I Municipal Infrastructure

##### 3.1.1 Project Selection

All projects have been identified and there are no new projects planned at this time.

The Oni water supply head works subproject is under preparation by GUWC. Tetra Tech will continue to conduct site visits and desktop analysis to verify the feasibility and design costs for the project as soon as they are available.

##### 3.1.2 Design

Based on the approved projects Tetra Tech will review the following designs as they become available next quarter:

Type	Item	Subproject	Contract Type
Road	1	Dusheti Roads (8 streets)	Roads DB (Lot 1)
	2	Mtskheta Roads (32 streets)	Roads DB (Lot 1)
	3	Gorijvari Road	Roads DB (Lot 2); original design prepared by GEO LTD
	4	Sagholasheni-Dvani Motorway	Roads DB (Lot 2)
	5	Pushkin Street (Gori)	Roads DB (Lot 2); original design prepared by GEO LTD
	6	Oni Roads (5 streets)	Roads DB (Lot 3)
Water Supply	7	Gori Water/Metering Project	DB; original design prepared by GUWC
	8	Oni Headwork Rehabilitation project	Design being prepared by GUWC not funded by GMIP
River Bank Protection	9	Dusheti River Bank Protection Project	GMIP Consultants Contract to be tendered

##### 3.1.3 Procurement

The following activities will be carried out during next quarter:

1. Roads DB contract:
  - Assist MDF in evaluating and selecting the contractors (July)
2. Gori Water Supply DB contract:
  - Assist MDF in preparing, reviewing, finalizing and issuing the bid documents for the (July)
  - Assist MDF in organizing pre-bid meeting (Aug)
  - Assist MDF in evaluating and selecting the contractor (Aug)
3. Dusheti Flood Protection design contract:
  - Assist MDF in preparing, reviewing, finalizing and issuing the RFP (July)
  - Assist MDF in evaluating and selecting the contractor (Aug)
4. Oni Water Supply Construction Contract:
  - Assist MDF in preparing, reviewing, finalizing and issuing the bid documents (Aug)
  - Assist MDF in organizing pre-bid meeting for the Gori Water Supply DB contract (Aug)

Based on the approved projects Tetra Tech will assist in preparing and reviewing the bid documents for the following projects:

#	Project Type	Contract Name	Contract No.	Contract Type	EOI Issue/ Open	RFP/ IFB	Bid Due	Contract Signed (estimated)
1	Municipal Infrastructure Roads	Rehabilitation of Access Road of Village Gorijvari, Internal Roads in Towns of Gori, Mtskheta, Dusheti, Oni, and Municipal Road Sagolasheni – Dvani.	ICB No: USAID/CW/ICB/03-2012	DB (3 Lots)	N/A	8 Jun	9 Jul	1 Aug
2	Municipal Infrastructure Water Supply	Rehabilitation works for Install water metering of 122 Housing and regulation valves in Town Gori, "Kombinati Residence".	ICB No: USAID/CW/ICB/04-2012	DB	N/A	15 Jul	15 Aug	1 Sep
3	Municipal Infrastructure Flood/River Bank Protection	Preparation of the Detailed Engineering Design, Bidding Documentation Package and Provision of Design Inspection Services for Rehabilitation Works for Dusheti Gorge Flood Protection in Dusheti Town.	USAID/C/QBS/03	Design	22 Jun / 5 Jul	10 Jul	10 Aug	1 Sep
4	Municipal Infrastructure Water Supply	Rehabilitation of Water Supply Head Works in Town Oni	TBD	Build	N/A	15 Aug	15 Sep	1 Oct

### 3.1.4 Design/Construction Oversight

The following activities will be carried out during next quarter:

1. For Each Road DB Contract (3 Lots):

- Mobilize oversight team & procedures (Jul)
- Establish Document Control Center (DCC) (Jul)
- Prepare QA/QC Guidelines with appropriate forms (Jul)
- Construction Management QA/QC Inspector Training (Jul)
- Prepare for Pre-Work Conference (Aug)
- Attend pre-work start-up meeting (Aug)
- Train Contractor on E,H&S procedures (Aug)
- Train Contractor on QC/DCC procedures (Aug)
- Train Contractor on Cash Flow Procedures (Sep)
- Review Contractor Preliminary Project schedule, QC Plan, and Safety Plan (Aug)
- Support preparation and review of all submittals, site-specific EH&S compliance documentation by contractor (Sep)
- Train Contractor on Cash Flow Procedures (Sep)
- Review designs (as required)
- Attend monthly meetings (monthly)

- Review all design changes, payments, etc. (as required)
  - Conduct on-site visits and on-site-testing (as required)
2. For Gori Water Supply DB Contract:
- Mobilize oversight team & procedures (Aug)
  - Establish DCC (Aug)
  - Prepare QA/QC Guidelines with appropriate forms (Aug)
  - Construction Management QA/QC Inspector Training (Aug)
  - Prepare for Pre-Work Conference (Sep)
  - Attend pre-work start-up meeting (Sep)
  - Train Contractor on E,H&S procedures (Sep)
  - Train Contractor on QC/DCC procedures (Sep)
  - Train Contractor on Cash Flow Procedures (Sep)
  - Review Contractor Preliminary Project schedule, QC Plan, and Safety Plan (Sep)
  - Support preparation and review of all submittals, site-specific EH&S compliance documentation by contractor (Sep)
  - Review designs (as required)
  - Attend monthly meetings (monthly)
  - Review all design changes, payments, etc. (as required)
  - Conduct on-site visits and on-site-testing (as required)
3. Dusheti Flood/River Bank Protection Design Contract
- Attend Pre-design meeting (Sep)
  - Review Initial Contractor Design Quality Control Plan (Sep)
  - Review 10% Complete – Design Concept (Sep)
  - Review 25 % Complete – Pre-Design Investigations (Yr 3 Qtr 1)
  - Review 35 % Complete –Preliminary design (Yr 3 Qtr 1)
  - Review 75% Complete- Draft Detailed Design(Yr 3 Qtr 1)
  - Review 95% Complete - Un-Reviewed Detailed Design (Yr 3 Qtr 1)
  - Review 100% Complete – Final Design (Yr 3 Qtr 1)
  - Attend all design submittal meetings (as required)

### **3.1.5 Environmental**

The following activities will be carried out during next quarter:

- Continue Work on EA for Flood Protection subject to completion of Hydrologic Study to be completed by others
- Review of project Site Specific Mitigation & Monitoring Plans (SSMMP) prepared by contractors
- Monitor environmental compliance (SSMMP) during construction

## **3.2 Component 2: Rehabilitation of Irrigation Infrastructure**

### **3.2.1 Procurement**

Procurement ICB No: USAID/W/ICB/02-2012 has been successfully finalized and contract signed with “Mshenebeli 80”. No additional procurement activities are expected.

### **3.2.2 Design/Construction Oversight**

The following activities will be carried out during next quarter:

- Review Contractor Preliminary Project schedule, QC Plan, and Safety Plan (July)

- Support preparation and review of all submittals, site-specific EH&S compliance documentation by contractor (Jul)
- Train Contractor on E,H&S procedures (Jul)
- Train Contractor on QC/DCC procedures (Jul)
- Train Contractor on Cash Flow Procedures (Jul)
- Attend monthly meetings (as required)
- Review designs (as required)
- Review all design changes, payments, etc. (as required)
- Conduct on-site visits and on-site-testing (as required)

### 3.2.3 Environmental

The following activities will be carried out during next quarter:

- Review of project Site Specific Mitigation & Monitoring Plans (SSMMP) prepared by contractors
- Monitor environmental compliance (SSMMP) during construction

## 3.3 Component 3: IDP Durable Housing Subcomponent I: Provide Water and Sanitation Upgrades for IDP Cottage Housing

### 3.3.1 Project Selection:

The following activities will be carried out during next quarter:

- Complete “Alternatives Study” to determine the most appropriate sanitation/waste water treatment technology to be used for the cottage settlements (Jul)
- Finalize works to be undertaken for cottage settlements (Aug)

### 3.3.2 Procurement

The following activities will be carried out during next quarter:

- Assist MDF in preparing, reviewing, finalizing and issuing the bid documents for the Water Supply build contract based on the Holinger design (July)
- Assist MDF in organizing pre-bid meeting for the Water Supply build contract (Aug)
- Assist MDF in evaluating an selecting the contractor for the Water Supply build contract (Aug)
- Assist MDF in preparing, reviewing, finalizing and issuing the bid documents organizing review of proposals and selecting a Contractor for the Drainage/Sanitary upgrade DB contract (Sep)
- Assist MDF in organizing pre-bid meeting for the Drainage/Sanitary upgrade DB contract (Sep)
- Assist MDF in evaluating an selecting the contractor for Drainage/Sanitary upgrade DB contract (Sep)

Based on the approved projects Tetra Tech will assist in preparing and reviewing the bid documents for the following projects:

#	Project Type	Contract Name	Contract No.	Contract Type	EOI Issue/ Open	RFP/IFB	Bid Due	Contract Signed
1	IDP Cottage Settlement Water Supply	TBD	TBD	Build	N/A	20 Jul	20Aug	1 Sep
2	IDP Cottage Settlement Drainage/Sanitary upgrades	TBD	TBD	DB	N/A	15 Aug	15 Sep	15 Oct

### 3.3.3 Environmental

None at this time

## 3.4 Component 3 IDP Durable Housing Subcomponent 2: Provide Durable Housing Solutions for IDP from 1990s Conflict

### 3.4.1 Project Selection

The following activities will be carried out during next quarter:

- Conduct site review and assessment of additional buildings identified by MRA for rehabilitation (July)
- Assist in reviewing cadastral issues on all additional buildings selected for rehabilitation (July)
- Conduct visit to potential new building site in Anaklia (July).
- Assist in developing procedures be used for temporary resettlement of IDPs during rehabilitation of the occupied community center buildings (as required)

### 3.4.2 Procurement

The following activities will be carried out during next quarter:

#### 1. 8 Hospitals:

- Assist MDF in preparing RFP and selecting design firm for conducting design (Jul/Aug)
- Assist MDF in preparing and issuing EOI, RFP and selecting firm for carrying out construction management (Jul/Aug/Sep)

#### 2. 28 Occupied Buildings:

- Assist MDF in preparing RFP and selecting design firm (Jul/Aug)
- Assist MDF in preparing and issuing EOI, RFP and selecting firm for carrying out construction management (Jul/Aug/Sep)

Based on the approved projects Tetra Tech will assist in preparing and reviewing the bid documents for the following projects:

#	Project Type	Contract Name	Contract No.	Contract Type	EOI Issue/ Open	RFP/ IFB	Bid Due	Contract Signed
1	IDP DH Building Rehabilitation	Preparation of the Detailed Engineering Design, Bidding Documentation Package and Provision of Design Inspection Services for Rehabilitation Works for IDP Housing for Eight (8) Former Hospital Buildings	USAID/C/ QBS/01	Design	22 Jun/ 5 Jul	10 Jul	10 Aug	25 Aug
2	IDP DH Building Rehabilitation	Preparation of the Detailed Engineering Design, Bidding Documentation Package and	USAID/C/ QBS/02	Design	22 Jun/ 5 Jul	10 Jul	10 Aug	25 Aug

#	Project Type	Contract Name	Contract No.	Contract Type	EOI Issue/ Open	RFP/ IFB	Bid Due	Contract Signed
		Provision of Design Inspection Services for Rehabilitation Works for IDP Housing for Twenty-Eight (28) Buildings.						
3	IDP DH Building Rehabilitation	TBD	TBD	Construction Management	15 Jul/1Aug	10 Aug	10 Sep	25 Sep
4	IDP DH Building Rehabilitation	TBD	TBD	Construction Management	15 Jul/1Aug	10 Aug	10 Sep	25 Sep

### 3.4.3 Design/Construction Oversight

The following activities will be carried out during next quarter:

1. DB Rehabilitation Works for IDP's Housing Contract No. USAID/W/ICB/01-2011 (10 Bldgs.)
  - Provide TA on Building Mock up (July)
  - Review ready for construction drawings (July)
  - Attend monthly meetings (as required)
  - Review designs (as required)
  - Review all design changes, payments, etc. (as required)
  - Conduct on-site visits and on-site-testing (as required)
2. 8 Hospitals Design Contract:
  - Attend Pre-design meeting (Aug)
  - Review Design Quality Control (DQC) Plan (Sep)
  - Review Site Investigation/Building Inspection Report\_10% (Sep)
  - Review Preliminary Design\_35% (Yr 3 Qtr 1)
  - Review Draft Detailed Design and Bidding Documentation package\_75% (Yr 3 Qtr 1)
  - Review Final Un-Reviewed Detailed Design\_95% (Yr 3 Qtr 1)
  - Review Final Detailed Design and Bidding Documentation package\_100% (Yr 3 Qtr 1)
  - Attend all design submittal meetings (as required)
3. 28 Occupied Collective Center Buildings Design Contract:
  - Attend Pre-design meeting (Aug)
  - Review Design Quality Control (DQC) Plan (Sep)
  - Review Site Investigation/Building Inspection Report\_10% (Sep)
  - Review Preliminary Design\_35% (Yr 3 Qtr 1)
  - Review Draft Detailed Design and Bidding Documentation package\_75% (Yr 3 Qtr 1)
  - Review Final Un-Reviewed Detailed Design\_95% (Yr 3 Qtr 1)
  - Review Final Detailed Design and Bidding Documentation package\_100% (Yr 3 Qtr 1)
  - Attend all design submittal meetings (as required)

### 3.4.4 Environmental

The following activities will be carried out during next quarter:

- Review of project Site Specific Mitigation & Monitoring Plans (SSMMP) prepared by contractors
- Monitor environmental compliance (SSMMP) during construction

### 3.5 Project Management

The following activities will be carried out during next quarter:

- Coordination with Other Donors and Technical Assistance Activities (as required)
- Tetra Tech budget realignment (Aug)
- Mobilize Tt HO STTA to assist with Preparation of the Annual Work Plan (Aug)
- A local roads engineer and a finance management specialist will be engaged to assist with project oversight and monitoring activities.

### 3.6 MDF Financial Review

The following activity will be carried out during next quarter:

- Review and clear monthly MDF advances

### 3.7 Training/Workshops/Events

The following activities will be carried out during next quarter:

- Signing ceremony for contract award for IDP Buildings and Irrigation (Aug)
- Contract Pre-Work Conference: All Contracts (Jul, Aug, Sep)
- Contractor QC/DCC training (Jul, Aug, Sep)
- Contractor E,H&S training (Jul, Aug, Sep)
- Contractor Cash Flow training (Jul, Aug, Sep)

### 3.8 Reports and Deliverables

The following reports and deliverables are planned per TO for next quarter:

Report	Date
C. Bi-Weekly Meetings and Reporting	As required
E. Quarterly Progress Reports	July 10
I. Annual Work Plan Year 3	Sept 1
H. Performance Monitoring Plan Update	As required

## **4. PROBLEMS AND ISSUES**

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### **4.1 Technical & Geographical Diversity of the Proposed Projects**

GMIP is composed of a wide range and types of subprojects, from roads, flood protection works, domestic water supply and irrigation systems to the rehabilitation of IDP apartment buildings and improved water supply and sanitation for IDP cottage communities. The subprojects are situated over a fairly wide area of Georgia, and travelling from one to another can take several hours by road. There will be works for:

- Rehabilitation of 46 IDP apartment buildings & 2,100 apartments located in 5 regions
- Water supply and sanitary upgrades for 11 cottage settlements (2000 cottages) in 2 regions and 5 districts
- Infrastructure improvement projects in 5 municipalities involving
  - 35 km of road repair for over 75 streets & roads
  - Internal water supply hook-ups for 122 buildings & 3,765 apartments
  - 1,500 m river bank protection works
  - Water supply treatment facility upgrade for 2000 persons
- Irrigation rehabilitation in two large schemes with over 100 km of canals.

Successfully covering Quality Assurance (QA) on all these subprojects will be a major challenge. This wide diversity of activities over a wide geographical area presents engineering, management and site supervision challenges. A Tetra Tech regional office was established in Kutaisi to assist with implementation of works in Western Georgia.

### **4.2 Roles & Responsibilities of Tetra Tech**

Tetra Tech has many and varied roles and responsibilities under the GMIP program, from oversight on project management, construction, procurement, and QA/QC; to preparation of environmental and other studies; as well as analyses of designs and studies prepared by others. To assume and prepare for these roles and responsibilities, Tetra Tech has assembled a staff focused on oversight and monitoring. Tetra Tech has limited long term resident staff available to assume direct design review or direct contract management. Although maximum use of local consultants is emphasized, arrangements have also been made to draw on Tetra Tech's cadre of home office engineers as STTA when required. A Gap Analysis was carried March – May 2012 to review roles and responsibilities of Tetra Tech. The review recommended that Tetra Tech add:

- Two additional project engineers
- More English language translation capability
- A reports writer
- Two additional vehicles for when construction activities pick up
- The services of one additional LTTA expatriate construction engineer.

Sufficient funds are not available to maintain the current local level of effort (LOE) through the end of the project. At the request of USAID Tetra Tech is under taking a budget review and preparing a budget realignment in lines with current and future staffing requirements.

### **4.3 Capacity of MDF**

MDF has in-house capacity to implement the program. However there is a concern that they are stretched too thin and may not be able to provide the degree of on-sight supervision required by USAID. MDF is currently considering a project management system. The system would place a Project Manager (PM) over each of the various contracts with a Core Team supporting the PM and a Site Team placed in the field to directly monitor and supervise the construction activities. Tetra

Tetra Tech continues to assess the capacity of MDF to engage and timely complete its various tasks in support of the GMIP activities. A Gap Analysis was conducted during March - May 2012. The analysis showed the chief issues or gaps in MDF infrastructure implementation are lack of sufficient full time on-site inspection, written construction management guidelines and/or QA/QC Plans, industry acceptable Construction Management (CM) procedures and/or processes, and organization & motivation. To provide GMIP subproject CM properly with full time on-site inspectors MDF will need additional staffing, vehicles, IT equipment, and safety & inspection equipment. MDF also seems to lack any safety and environmental compliance capability or they simply are not enforcing their own plans on site. A total of 34 on-site inspectors would be needed if MDF were to satisfy USAID's request for on-site supervision. It was recommended that MDF's performance in providing these services be observed over a four to six week period on the first two GMIP Contracts to make this determination. If at the end of this time, Tetra Tech determines MDF cannot or will not provide the required level of professional inspection and CM practices needed, these services should be provided by Georgian consultant engineering firms through MDF subcontracts but working more closely with Tetra Tech.

After reviewing their capability MDF has decided that they will provide the CM for the 10 Building Contract, the Roads contracts, and the Dusheti Flood protection subproject. For the Irrigation project MDF is providing CM; however MOA will provide 4 staff for on-site inspection. MDF will contract out CM services for the 28 Building and the 8 hospital Contracts. The remainder of the works has not been decided. For the Municipal Infrastructure projects additional staff may be available from the municipalities. For the water supply and sanitary upgrades at the cottage communities it may be possible with assistance from the NEO project to identify qualified IDPs living in these communities to assist with the on-site supervision. To ensure high quality on-site supervision, training and support will be provided to the onsite inspection teams by Tetra Tech, assuming that there are sufficient contract funds available.

Resources to support the MDF project management staff is also an issue. These include staff salaries, field support equipment, travel and transportation. USAID agreed to allow MDF to use project funds for procuring Inspection & Safety Equipment and IT Equipment & Gadgets. Under the GMIP Funding agreement, it is difficult for USAID to cover the costs of Staff Salaries. These are usually considered GOG contributions to the project. One option under consideration and supported by USAID is to provide office support, communications, and transportation costs through the various contracts. Initially MDF rejected the idea but has reconsidered. This mechanism was not included in the 10 Building contract. It was included in the irrigation contract and is intended to be in all future contracts. MDF is in the process of negotiating a price with the 10 Building contractor for supplying these items. The final arrangement for supplying these resources for the Irrigation contract also remains unsettled.

#### **4.4 Project Completion Date**

The Tetra Tech Contract goes through November, 2013. The MDF IL is through December 2013. The construction period including turnover was expected to be completed by September 2013. Delays in procurement and construction may result in construction contracts that finish after this date. For example the Irrigation contract is scheduled for completion on 1 September 2013. The contract for the 28 collective center building rehabilitation will be a design-bid-build. The design contract will probably not be signed until end of August 2012. The design is expected to take 4 months, the construction tendering process 2 months and construction 12 months. This results in a project completion date of February 2014. This would extend the work passed the project completion date and may require extensions in the Tetra Tech Task Order and/or the MDF Implementation Letters.

#### **4.5 Contractor Bid Participation**

For the first contract (Rehabilitation Works for IDP's Housing Contract No. USAID/W/ICB/01-201\_10 Bldgs.) there was only one bidder. For the second contract (Rehabilitation Works for Tiriponi and Saltvisi Irrigation Systems ICB No: USAID/W/ICB/02-2012) there were only two bidders. To encourage the participation of more bidders, Tetra Tech in cooperation with MDF, conducted a contractor awareness workshop in April to explain the upcoming road DB contracts. Nine firms attended. Six firms attended the pre-bid meeting. To date four firms have requested bid documents.

#### **4.6 Component I Municipal Infrastructure**

The final selection of the municipal infrastructure subprojects is complete.

##### **Road Projects**

Kavgioprotrans-mg" Ltd (KAV) prepared feasibility studies on 5 road projects: Dusheti (8 streets), Mtskheta (32 streets), Oni (5 streets), Gori (27 streets) and Sogholasheni-Dvani motorway. The Gori streets were dropped by the Municipality. Separate designs were prepared for Gori municipality by Geo LTD for Gorijvari Road and Pushkin St. These two subprojects were originally to be tendered directly for construction. Because of questions on the design and MDF's urgency to complete construction as soon as possible the two subprojects were included in the Road DB. Because of uncertainties on contractor willingness and local capability for local national contractors to do work in Oni, the Roads DB tender was issued with three separate lots: Lot 1 (Dusheti & M Mtskheta); Lot 2: Oni; Lot 3 Gori- Gorijvari Road, Pushkin, and Gorijvari Road. MDF would like to see the work completed by November 2012 before the start of the winter season; therefore the contract was tendered with a 5 month design/construction completion of mid-schedule. The earliest likely contract signing date is 1 August. To complete the work by November the contracts should be signed in July, which is unlikely. The contractors will be forced to shut down for the winter period and resume the works in April 2013.

##### **Dusheti Flood Protection Works**

A separate EA is required for the flood protection project. This will require a hydrologic study that has been included as part of the Dusheti design contract. The contract probably will not be signed before 1 September. The Hydrologic study should take 1 month. Therefore the EA should be completed by 1 November.

##### **Internal Water Supply and Installation of Water Meters in Gori**

GUWC prepared a design for Internal Water Supply and Installation of Water Meters in Apartment Buildings in Kombinati Settlement in Gori. The external water distribution line for the area was recently rehabilitated. It is reported that there is sufficient water available and pressure at the headworks. However, the pressures in the external line in the project area are only 0.5 -1 ATM versus a design requirement of 3 ATM. Because of the uncertainty in the external water supply delivery system GUWC has proposed pumps be installed in many of the 122 buildings. At the request of GMIP GUWC conducted field tests on the external supply line and prepared a computer simulation model to determine where and why the water losses are occurring. Because of the uncertainties in the design MDF agreed to issue the tender as a DB to allow a thorough design review before proceeding with construction.

##### **Oni Water Supply Project**

Only one subproject, rehabilitation of water supply head works in the town of Oni, has not been fully reviewed by Tetra Tech. The original design involved a sophisticated, membrane filter, water treatment plant without any system storage. After discussions GUWC agreed to review the design requirements. A less expensive, more traditional, rapid sand filter, treatment process with a small storage tank is now being proposed. The preliminary designs and costs data are being prepared by GUWC and are expected to be available in July. This information is required to evaluate the project before Tetra Tech can recommend final approval. An environmental assessment will also be required.

#### **4.7 Component 2: Irrigation Infrastructure**

The bid amount for the contract exceeded the USAID budget ceiling allocated for the irrigation component. Therefore the ceiling for the contract was set at USD 8.1 million. Because of the uncertainty of the cost of the structures and the feasibility level of the quantity estimates the extent of the works that can be completed within the allocated budget needs to be evaluated and prioritized as soon as possible to re-evaluate the performance outcomes expected under the project:

- Number of beneficiaries receiving improved infrastructure service: 20,000 Households/farms including 8,000 IDPs
- Number of additional and improved hectares irrigated: 20,000 hectares
- Increased family/farm income: USD 7 million based on average additional income USD 350 /ha/year

Because of the late signing of the contract (May 31) the irrigation season has started and water is flowing in the canals. This makes it very difficult to conduct a proper inspection of the condition of the canals and related structures. It is also not possible to carry out proper canal surveys required for estimating material quantities needed for payment. It complicates any canal and structure rehabilitation in the channels and at Karbi headworks. To date the contractor has not been able to organize procedures for shutting down parts of the irrigation system during the irrigation season so that the survey, design, and construction work can be carried out. Tetra Tech is still waiting to receive a plan from the contractor agreed upon by MDF that allows the contractor to work during the irrigations season.

Because of limited access to canals and canal structures during the irrigation season, the contractor has proposed rehabilitation and construction of the access and O&M roads for the canals. Normally this would be encouraged, but with the limited funding the construction of access roads may not be needed along all canal sections. This is being discussed with the MOA Irrigation Company that is responsible for operating the system.

The contractor has proposed several works that were not part of the original proposed works. USAID and GOG will need to make a decision on funding these items from GMIP funds once costs and justification are presented. These include:

- Rehabilitation of river embankment protection for Saltvisi Main gravity canal just downstream of the Nicosi headworks.
- Construction of a canal wasteway for Tiriponi Main Canal just downstream of the location where the canal crosses into Georgia. The headgates on the canal are on the Ossetia side and are occasionally opened without warning sending up to 6 m<sup>3</sup>/s into the canal. The contractor contends this could cause serious interference with construction in the main canal if mitigation measures are not put in place.
- Construction of a canal wasteway for Saltvisi Main Canal at Sta. 4+00 where the pipeline from Nicosi pump station discharges into the main canal. The headgates of the canal are on the Ossetia side and are occasionally opened without warning sending up to 4 m<sup>3</sup>/s into the

canal. The contractor contends this could cause serious interference with construction in the main canal if mitigation measures are not put in place. Apparently the canal is also used for dumping sewage from Tskhinvali City mixing with and polluting the pumped water from Nicosi pump station.

#### **4.8 Component 3: IDP Durable Housing Subcomponent 1: Water and Sanitation Upgrades for IDP Cottage Housing**

The municipalities were not able or willing to allocate the land required for construction of infiltration fields required for supporting the septic tank waste water treatment option. MDF and GUWC now seem willing to consider the installation of the more sophisticated and expensive package activated sludge treatment plant option (Biotal). This seems to indicate a major change in attitude towards waste water treatment for the IDP cottage settlements. USAID has requested Tetra Tech carry out an “alternatives” study to determine the best site specific options for each settlement. The study is expected to be completed by end of July. Options being considered include:

- Septic Tank and Infiltration Drain Field Treatment
- Oxidation Pond Wastewater Treatment
- Aerated Lagoon Treatment
- Latrines
- Activated Sludge Treatment

One of the sanitary improvements involves the construction of a combined flush toilet/shower facility. Ideally this would be connected directly to each cottage. However, MDF under a separate EU funded contract is currently installing special insulation on the outside of all of the cottages. Construction of any structure that would attach directly to the cottage would require cutting a door through the outside cottage wall. There is concern this would interfere with the integrity of the insulation and potentially place blame on USAID if there were future problems. Alternatives will be considered during the design phase.

Water quality testing of the water supply sources for the cottage communities (9) where improvements in water supply have been proposed showed high nitrate concentrations (110 mg/l) in the ground water supply for the cottage community of Shavshevbi. An alternative water source was identified during the original hydrogeological investigation carried out in 2010. MDF will prepare the designs and BOQs and this will be included in the construction contract for improved water supply based on the Holinger designs.

Considerable concern has been raised by various donors and USAID on the extent of the mold problem in many of the cottages. It seems to be a universal problem caused by improper construction and inadequate drainage. USAID has decided to address the drainage issue under GMIP. The improved surface drainage proposed in the Holinger design will be included in the DB contract for sanitary upgrades. This will allow a renewed look at various drainage alternatives including sub-surface drainage, installation of storm drains and gutters for each cottage, and improved local yard drainage.

#### **4.9 Component 3 IDP Durable Housing Subcomponent 2: Durable Housing**

Of the various program components, the IDP durable housing will be the most complicated component to address. The issues surrounding IDPs and the intense sensitivity of IDPs, their interaction with each other and with broader non-IDP communities, can be complicated and require careful consideration throughout to avoid possible problems during implementation. Cooperation during the early stages between MRA, MDF and USAID to identify, anticipate and plan actions required to mitigate risks for all possible issues will be essential for final success. IDPs living in the durable housing units that will be rehabilitated will be relocated during and after the construction.

Experience has shown this practice of moving the IDPs is a very complicated and requires careful and thorough planning. If temporary relocations are implemented without good and regular communication, and without adequate provision for quality of life issues, IDPs will not only fail to support the rehabilitation, but the larger Georgian community (NGOs, politicians, etc.) may fail to support it, and may actively work against the project. Poorly planned and implemented temporary relocation could derail support for the project. Mitigation, in the form of a Resettlement Plan with regular and inclusive communication, will be required to offset any adverse impacts. MRA has taken responsibility for relocating IDPs during construction works. However, no funds have been allocated to date. USAID is aware of this problem and has been working with MRA and Neo to come up with possible solutions that include:

- MRA should prepare a data base of IDPs that will be resettled.
- MRA should start negotiations with IDPs in the collective centers to resolve any issues prior to the resettlement.
- MRA should prepare the strategy for temporary resettlement and identify the target group for permanent resettlement.

Ownership of the buildings and surrounding area has become a major issue. Of the original 93 buildings identified by MRA for rehabilitation, only 36 buildings are being considered for rehabilitation (10 unoccupied and 28 occupied collective centers). Only those buildings with confirmed government ownership are being considered. However some of the buildings are under partial lease or have not been registered properly. Letters have been sent to MRA requesting that they correct these inconsistencies.

Occupancy of the buildings proposed for rehabilitation by IDPs and non-IDPs is a more serious issue. Three of the ten buildings planned for rehabilitation under the first contract (10 buildings) have occupancy issues. There are two hospitals in Zestaphoni that are under lease until September. Hospital staff are still working in these buildings. There is a former police building in Kutaisi that has two non-IDP families living in the building even though construction has started. MRA has promised to resettle these families. The families seem reluctant to move. This is not only a sensitive social issue but it is also a safety issue. Work will have to be stopped if the families are not resettled.

USAID is concerned that there could be one or more families in each of the 28 collective centers proposed for rehabilitation that will not be willing to vacate their current apartments. The families are concerned they will not be able to return to their original apartment, will be given a smaller apartment or will be relocated to a less desirable location. MRA is currently conducting a survey to determine the extent of this problem. If even one family refuses to relocate then this may make the entire building ineligible for rehabilitation under the USAID program.

MRA continues to identify potential buildings for rehabilitation. At USAID's request Tetra Tech is conducting site visits to determine structural stability and cadastral surveys to try to clarify the ownership status of these buildings. USAID has decided not to consider any additional occupied buildings for rehabilitation.

One alternative being considered by USAID is the construction of new buildings. A Concept study was conducted in May by Tetra Tech at the request of USAID. Three locations were reviewed: Batumi, Poti, and Kutaisi. It was determined that Kutaisi was the best location. The cost of a new building was estimated at USD 591,470 (USD 836/m<sup>2</sup> or USD 28,758/apartment). MRA has suggested still another location in Anakli. A joint USAID/MRA/Tetra Tech visit is planned in July.

#### **4.10 Administrative Issues**

Tetra Tech has now has five vehicles to support the QA program. Only four vehicles were originally budgeted under the project. With the opening of a regional office a fifth vehicle was required. Some cost savings occurred because the vehicles were supplied in stages; however additional funds will still be required to support all the vehicles through the life of project.

Additional local long term staff will be required to support the oversight role of Tetra Tech. To strengthen oversight presence and to save travel costs to Oni and Western, two local staff (Regional Engineer and Oversight construction engineer) have been hired to support the operations from the Tetra Tech regional office in Kutaisi. A roads engineer has been identified and will be hired to provide design & construction oversight for the 6 road projects. A Document Control Officer has been hired to maintain all project records and to train and monitor the document control processes of MDF and more than the 10 expected contracts. Additional STTA staff for editing, monitoring and evaluation (M&E), and design review will also be required. The Gap Analysis also suggested that an additional expat long term resident engineer be considered. USAID is aware of these requirements and is investigating possible alternatives for supporting these initiatives.

The original Expat STTA LOE for the environmental program was 128 days. More than 210 days have been expended to date. Most of this additional LOE has been required to support the unexpected EA requirements for the Municipal Infrastructure and Irrigation projects. There was also additional expat STTA required for preparation of the DB bid documents, the Construction management GAP analysis, and the cottage settlement wastewater treatment alternative study. It is also anticipated that preparation of comprehensive O&M documents and turnover inspection and approval for all the works will require Expat STTA. The costs will be presented in the next Work Plan update and included in the next budget realignment.

## 5. STAFF LEVEL OF EFFORT

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The GMIP LTTA and STTA professional, technical, and administrative support staff for the reporting period are presented below:

### 5.1 Resident Staff

Two additional local long term engineering staff were hired during the quarter:

- Avtandil Baramia, Regional Construction Over-Site Engineer, Kutaisi
- Anna Urotadze, Document Control Manager

Resident Tetra Tech staff are listed below:

NAME	POSITION
Jeffrey Fredericks, P.E. PhD	Chief of Party
Iliia Eloshvili	Infrastructure Manager & DCOP
Teimuraz Levanishvili	Housing Rehabilitation Manager
Mamuka Shaorshadze	Environmental, Health & Safety Specialist
Archil Lezhava	Displaced Person Relations/Outreach
George Nizharadze	Office Operations Manager
Irakli Kakulia	Paralegal/Licensing & Permits
Givi Varduashvili	Senior Civil Engineer
Vasil Apkhazava	QA/QC Engineer
Otar Maghalashvili	Irrigation Engineer
Koba Tsiramua	Regional Engineer (Kutaisi)
Avtandil Baramia	Regional Construction Over-Site Engineer (Kutaisi)
Anna Urotadze	Document Control Manager
Maia Dvali	Translator/Interpreter

### 5.2 Short Term Staff during the Report Period

The following expat STTA provided support in Georgia during the report period:

- Michael McGovern, Sr. Construction Manager /Engineer (Mar 1- 31)
- Jim Hayden, Construction Engineer, (June 16- July 18)
- James Gallup, Senior Environmental Specialist (June 23-July 6)

The following expat STTA provided support from the home office or from the US during the report period:

- James Gallup, Environmental Specialist
- David Beecy, Sr. Civil Engineer
- Zhijian (Jason) Tang, Mid Water Resources Engineer
- Joseph Hanlon, Sr. Project Manager
- Brian Ackley, Sr. Transportation Engineer
- Lauren Day, Jr. Administration Support
- Russ Riddell, Senior Project Manager (Technical Services Manager )
- Kristen Bouffard Sr. Project Architect
- Frank Harrigan, Sr. Structural Engineer
- Pete Oliver, Architect
- Jeff McKenna, Sr. Mechanical Engineer
- Gerard (Jay) Dunham, Sr. Sanitation Engineer
- James Smoyer, Sr. Electrical Engineer

The following local STTA provided support during the report period:

- Sergo Gviniashvili , Finance Specialist)
- Mamuka Gvilava, Environmental Consultant

### 5.3 Home Office Staff

The Tetra Tech Home Office management staff supporting the project are listed below:

NAME	POSITION
Firouz Rooyani	A&E IQC Program Manager
Renee Valentino	Contract Manager (EM)
Shelly Rice	Subcontract Specialist (EM)
Thomas Chicca	Task Order Manager & QA/QC (RAI)
Susan DeMarre	Project Analyst (RAI)
William Sontag	Project Analyst (RAI)
Brian Bemis	Sr. Administrative Assistant (RAI)
David Sharashenidze	Home Office Coordinator (ES)

### 5.4 Other Administrative & Staff Issues

Purchase Orders for local Contract Services during the quarter included:

- Scientific Research Firm GAMMA was contracted to conduct water quality testing in 6 places of 3 settlements in Mtskheta and Kaspi regions.
- Separate agreement was signed with Scientific Research Firm GAMMA to provide water quality testing on Biotal” Waste Water Treatment Facility.
- Translation company “Dikke International” was contracted to provide a translation of the “Employer’s Requirements” of the Irrigation bid document.
- Agreement was signed with “Gitec” LTD to provide GMIP with the file server
- Ms. Mariam Vasadze was hired as Office Cleaner for Kutaisi regional office and contracted under simplified Purchase order.
- Mr. Besarion Gulashvili was hired on the position of Photographer to assist project staff on workshops and various award ceremonies and provide GMIP with high quality photo material.
- Tetra Tech has made arrangements with subcontractor Autorent Ltd for provision of auto services.
- Tetra Tech has made arrangement with Sole Proprietor “David Tsagurishvili” for the provision of additional vehicle and driver service to the project.
- Tetra Tech has an agreement with Ms. Rima Boshishvili for the provision of GMIP office cleaning service.
- The Tetra Tech office IT support is provided by IT Fix Ltd.
- Tetra Tech has an agreement with MagtiCom to provide corporate mobile communication service.
- Tetra Tech has an agreement with JS Insurance Company “Imedi-L” to provide health insurance service for LTTA project staff.
- LTD “Caucasus Online” provides GMIP office with high speed internet.
- Tetra Tech signed a fixed price agreement with General Partnership “Kavtaradze & Partners” to provide various legal services to GMIP.

## 6. STATUS OF FINANCES AND EXPENDITURES

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GMIP has completed 13 months of the 30 month contract (40%).

Financial summary for the reporting period April – June 2012 is presented below:

Contract No.: EDH-I-00-08-00027-00  
Order No. : AID-I14-TO-I1-00002  
Georgia Municipal Infrastructure Project  
Tetra Tech EMI  
Reporting Period: Apr - Jun 2012  
Funding to Date: \$2,800,000

<b>Expense Type</b>	<b>Budget</b>	<b>Previous Period</b>	<b>Current Quarter</b>	<b>Cumulative To Date</b>	<b>Balance Remaining</b>	<b>Expended</b>
<b>Salaries Workdays Ordered</b>	\$43,703	\$6,640	\$1,966	\$8,606	\$35,097	20%
<b>Fringe/Overhead</b>	\$38,515	\$5,852	\$1,733	\$7,585	\$30,930	20%
<b>Other Direct Costs/Travel</b>	\$4,751	\$303	\$88	\$391	\$4,360	8%
<b>Intercompany/ Subcontractors</b>	\$4,368,581	\$1,117,726	\$586,011	\$1,703,737	\$2,664,844	39%
<b>G&amp;A</b>	\$9,306	\$1,369	\$405	\$1,774	\$7,532	19%
<b>Subtotal</b>	\$4,464,856	\$1,131,889	\$590,204	\$1,722,093	\$2,742,763	39%
<b>Fixed Fee</b>	\$312,540	\$79,232	\$41,314	\$120,546	\$191,994	39%
<b>Total</b>	\$4,777,396	\$1,211,121	\$631,518	\$1,842,639	\$2,934,757	39%

Source: Tetra Tech Voucher # 50569198 (May 25, 12); Estimated for June 2012.

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