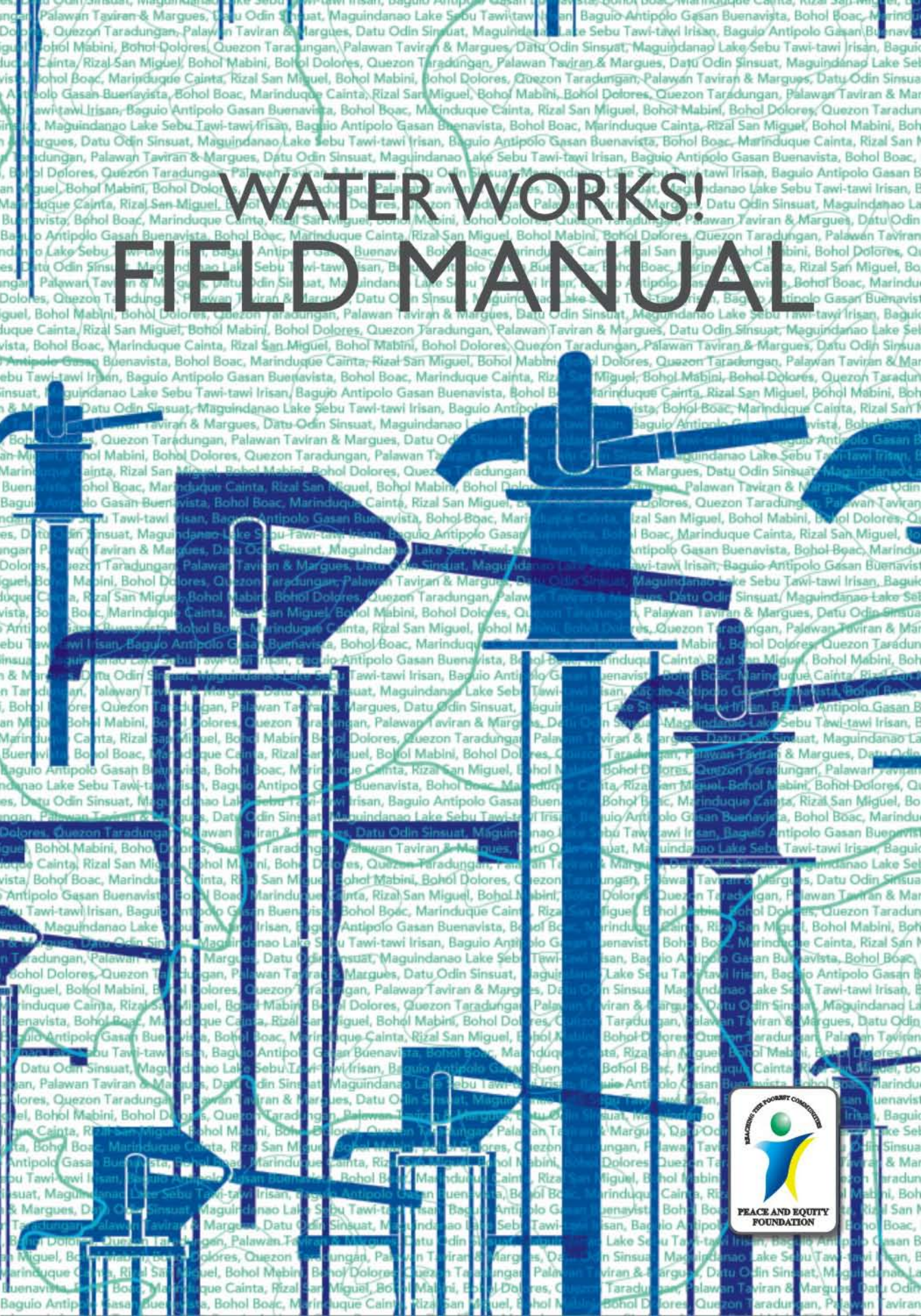
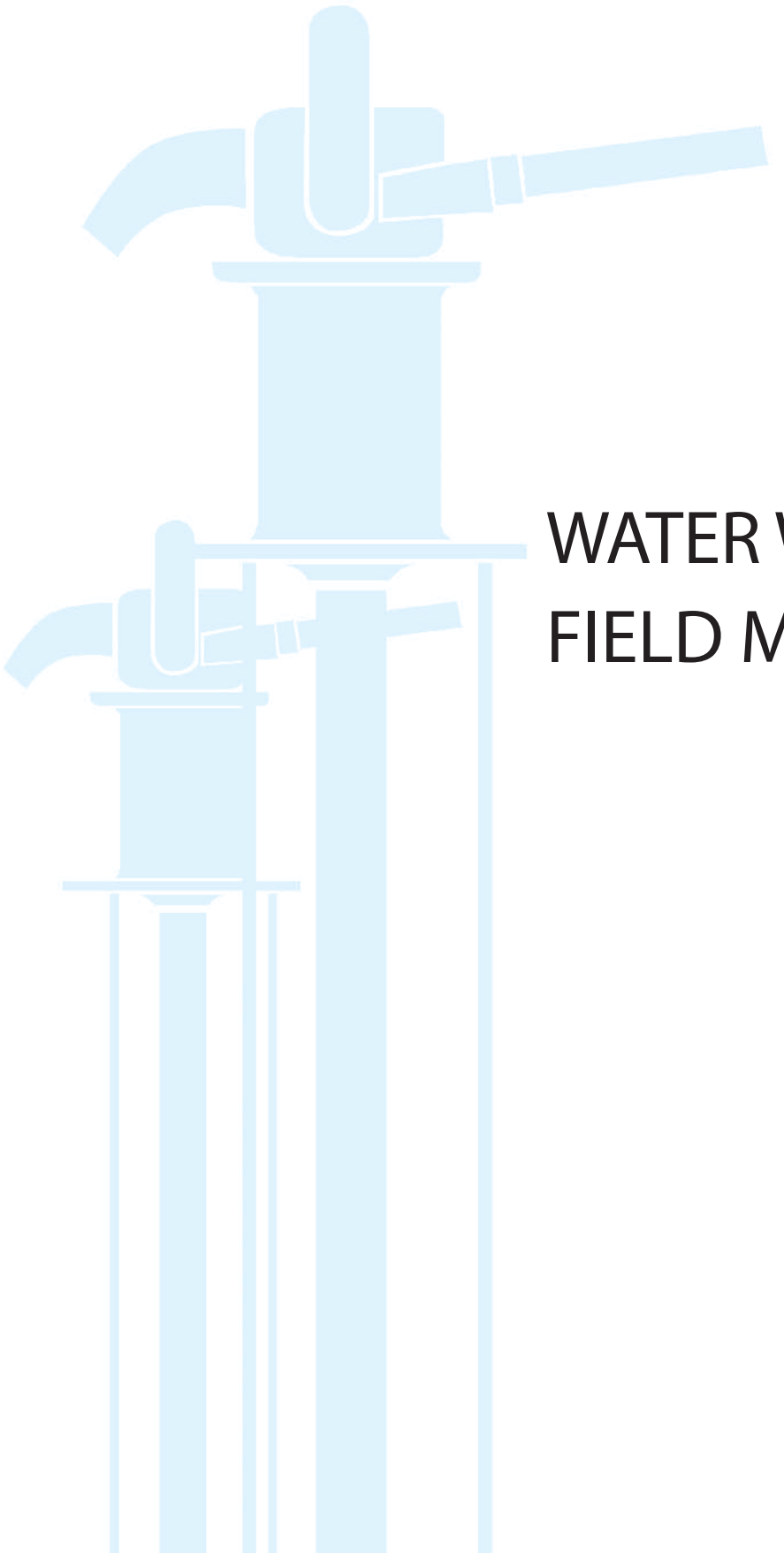
WATER WORKS!
FIELD MANUAL



PEACE AND EQUITY FOUNDATION



WATER WORKS!
FIELD MANUAL

ACKNOWLEDGMENT

Water Works! distills within its pages the collective experiences, learnings, and expertise of the Foundation and its partners. As can be inferred from its title, it also carries an advocacy—our advocacy that if done properly, potable water projects work and can make a difference in improving people's lives.

We thank our development associates who, because of their commitment to potable water provision, especially for the poor, volunteered their time, ideas, drawings, photos and writings for this resource kit. We also thank our NGO partners, who candidly shared their good and bad experiences to help other NGOs after them.

We thank partner-organizations, the Philippine Center for Water and Sanitation, the Jaime V. Ongpin Foundation, Inc. and the Coalition of Social Development Organizations in South Cotabato, for their pioneering and current work on potable water and for allowing us to use some of their materials for this manual. We thank STRIDES for overseeing the processes that went into developing this manual, as well as all PEF staff who gave their ideas, shared materials and allowed themselves to be interviewed for this resource kit.

We give special recognition to the Water Resources Center of the University of San Carlos for lending us their expertise. The technical drawings in this field manual were meticulously created and reviewed by their team of engineers led by Engr. Petronio Muring (Manager, Water Supply Section) and Engr. Geoffer Gonzaga (Hydrology Engineer II, Water Supply Section). The design specifications and materials recommended in the drawings range from low cost to very expensive to present varied options. They caution though that, in most cases, low cost technology cannot guarantee sustainability of the water system. The engineering aspect of a water project should be highly considered and balanced with community organizing and training aspects.

Another significant contribution to this field manual is the Trainer's Manual on Financial Management developed by Mr. Michael Cañares of STEP UP Consulting Services for PEF-assisted organizations in Bohol. STEP UP Consulting Services is a duly registered consulting firm engaged in providing various services to clients on different areas as training, organizational development, financial management, research and evaluation, technical writing, and facilitation.

Finally, we are grateful to our partner-communities, who worked with STRIDES Inc. and PEF, and shared valuable insights that other communities can surely learn from. We include all the names of those who participated in the development of this resource kit in the list of key informants found at the end of the kit.

Water Works! is a work in progress. The engineering aspect and technical recommendations of a water project should be reviewed vis-a-vis local community conditions and the organizational capability of the local implementing partner.

PEACE AND EQUITY FOUNDATION INC.

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Section 2. Sample Documents

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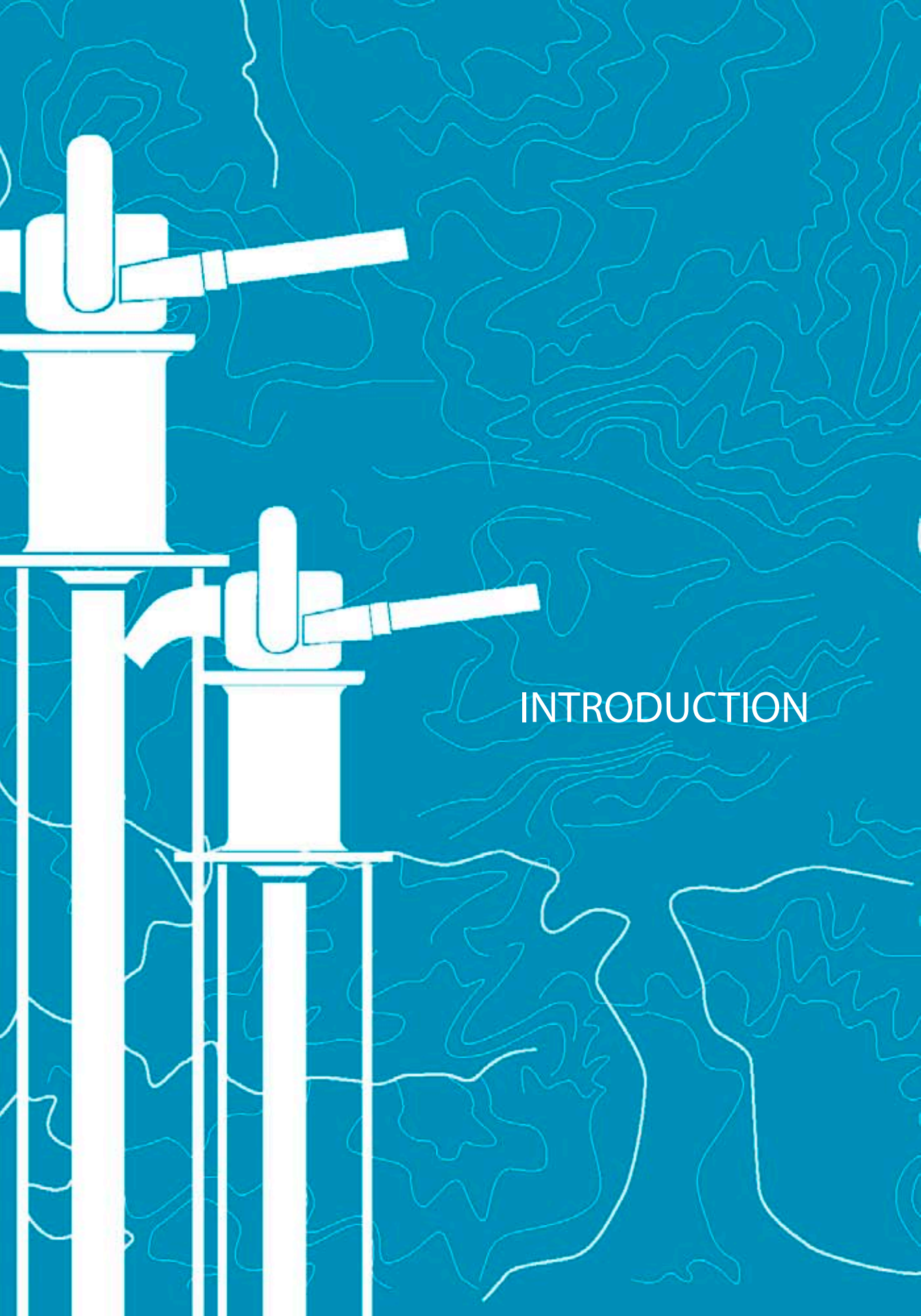


INTRODUCTION

DEVELOPING WATER WORKS!
A RESOURCE KIT FOR POTABLE WATER PROJECTS

CONTEXTS AND CONSIDERATIONS

A unique set of contexts and considerations guided and shaped the design and development of *Water Works!*

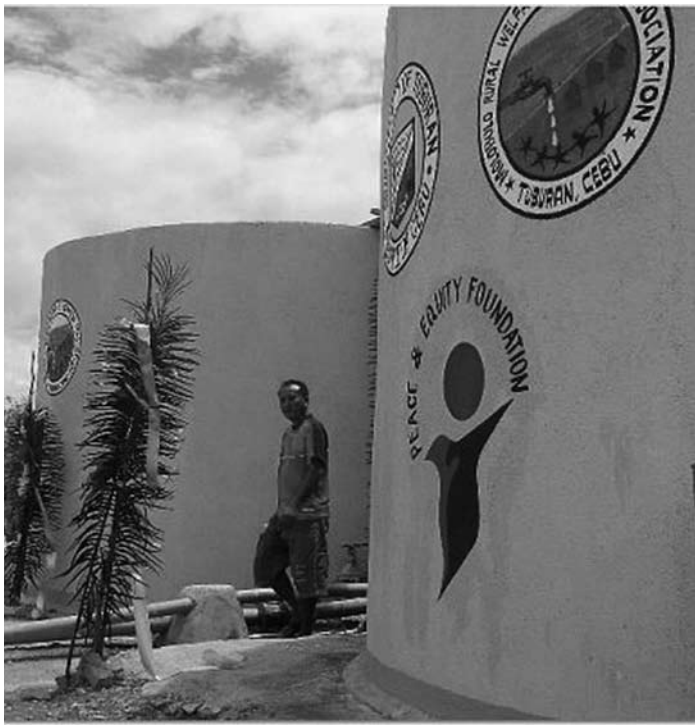
Building on existing CO models in water implementation

Water Works! aims to contribute to the existing literature on potable water supply implementation in the Philippines. Its development was guided by a careful review of existing manuals on potable water project implementation to draw insights on manual development, avoid duplication of contents, and add to what previous manuals already offer.

Since 2000, two local field manuals developed by recognized water experts have guided project implementation and community organizing (CO) in rural water projects in many parts of the Philippines. These are:

- *A field manual on formation of rural waterworks and sanitation association (Levels II & III)*, developed by Water Resources Center, University of San Carlos (USC-WRC) in 2000, (unpublished but widely disseminated to the USC network, specially in Visayas and Mindanao, particularly among KALAHI-CIDSS and PEF partners)
- *Community organizing: a process guidebook, published in November 2001* by Rural Water Supply & Sanitation Project-Phase V of the Department of the Interior and Local Government (DILG), (developed for the DILG by the Philippine Center for Water and Sanitation-International Training Network Foundation)

Over the years, PEF has tapped PCWS-ITNF and USC-WRC expertise in the implementation of its water projects in different parts of the Philippines. These CO-for-water models have served as an early reference and guide to PEF water projects. Given their influence in the field of practice, a closer look at their CO models will anchor later discussions on a PEF water project multi-stakeholder implementation framework and proposed set of activities.



The USC-WRC field manual outlines 33 CO activities in the formation of rural water supply associations (RWSA) and the implementation of rural water projects while the DILG/PCWS-ITN manual offers 20 activities. Activities in both manuals are divided into a few major phases, and USC-WRC further classifies proposed activities into community, technical and training activities.

Table 1. Project phases in CO-for-water models

USC-WRC (developed 2000, unpublished)	DILG/PCWS-ITNF (published 2001)
Three major phases 1. Formation 2. Development 3. Consolidation *33 CO activities *activities also classified into: 1. CO 2. technical 3. training	Four major phases 1. Preparatory 2. Organization 3. Consolidation 4. Networking/pullout and follow through * 25 activities: 5 preparatory activities and 20 more activities to cover organization to networking/ follow through

There are distinct differences and interesting similarities between these two manuals/models (see Tables 1 and 2 on pages 4 and 7). Both were based on actual rural water implementation experiences. Both share common activities (e.g., entry) and cover the major phases of water project implementation, starting from preparation/formation to pullout. Both highlight the importance of engaging the community from the very start. They both offer a simple step-by-step guide for engaging communities throughout the project as well as providing them with skills for water operations management and maintenance. Finally, both manuals assume that the community is not actively involved in actual construction.

On the other hand, the differences between the two manuals reflect the unique context behind the development of each. The DILG publication is meant for LGUs and community water associations implementing level 1 water projects under DILG's WATSAN project. The USC-WRC developed its manual in response to the many requests of NGO and government partners for technical, training and CO guidelines in implementing Levels II and III water systems. As such, each manual offers a slightly different CO framework (see Figures 1 and 2 on pages 5 and 6), even if at first glance, the two may appear very similar.

The differences in the proposed activities reflect the unique needs addressed in each manual. The USC-WRC model has more technical-oriented activities (e.g., requisition of technical assistance, presentation of a feasibility study, certification of water quality, technical designing) showing how implementors can engage technical persons like engineers in community organizing.

Technical requirements get virtually no treatment in the DILG/PCWR-ITN model except mention of the need for a pre-construction conference. It is in the preconstruction conference where technical aspects of the projects (role of technical person, technical plan) are presented to the community. The lack of discussion on technical-oriented activities in the ITN manual could be attributed to how the DILG WATSAN project was implemented. The CO and technical components of the project were parceled out to two different groups. ITN was asked by DILG to provide technical assistance for community organizing/social preparation in their WATSAN project sites while a separate engineering firm took care of water system construction. On many occasions, the CO component was completed before actual construction of the system began (Banluta, 2006).

The DILG/PCWR-ITN model describes preparatory (e.g., site selection) and follow through activities not discussed by USC-WRC. These activities approximate implementation concerns of funding or government agencies implementing or supporting water projects in more than one locality. The DILG/PCWR-ITN's CO activities also show the barangay, municipal and provincial governments being actively involved in the whole process, which is not as evident in the USC-WRC model.

Figure 1. University of San Carlos, Water Resources Center CO Operational Framework
Source: *A field manual on formation of rural waterworks and sanitation association (Levels II & III)*

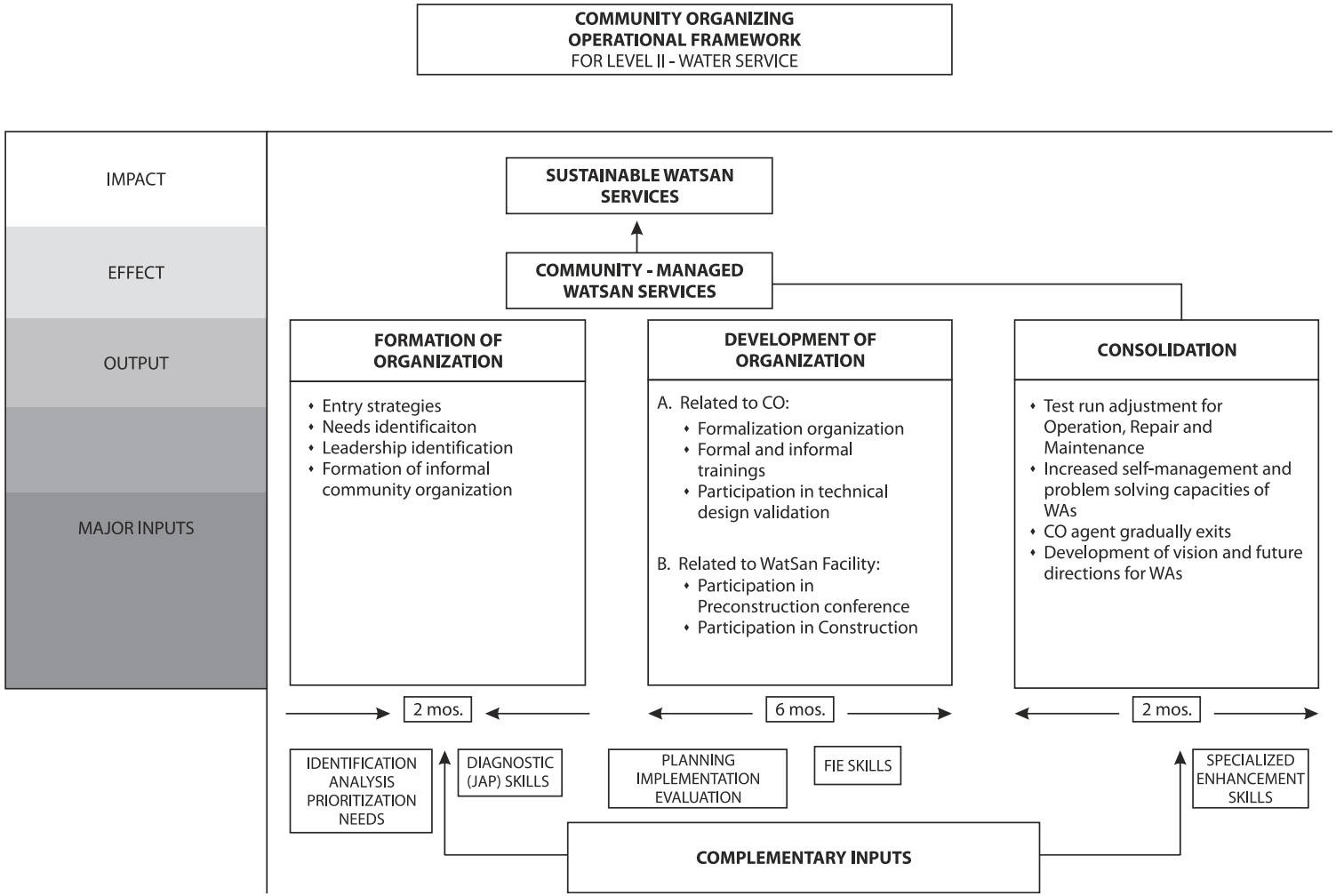


Figure 2. RSWP-V DILG Community Organizing Framework
Source: *Community organizing: process guidebook, 2001*

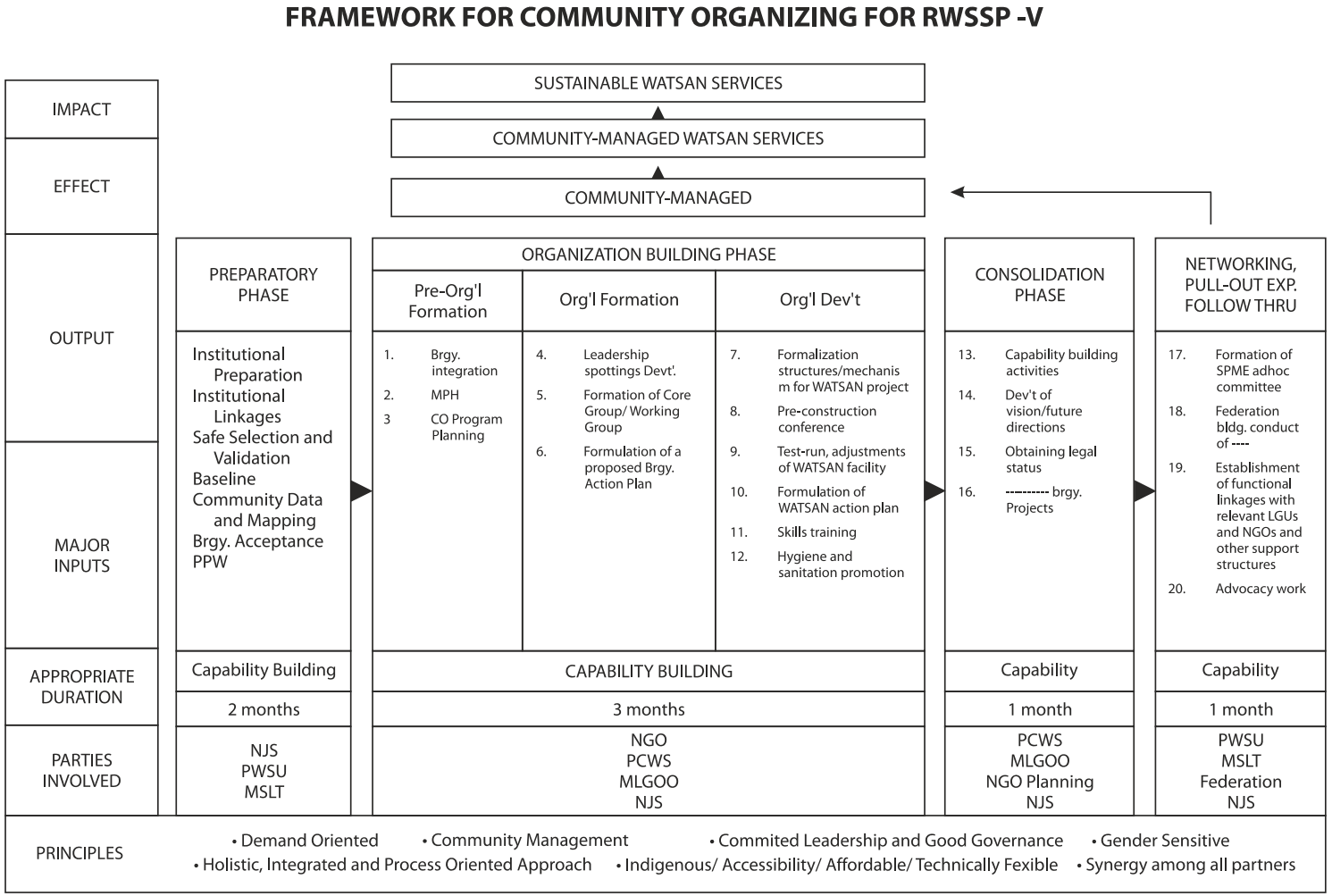


Table 2. The CO Activities for Water of USC and PCWR-ITN

USC-WRC	DILG/PCWR-ITN
	I. Preparatory phase 1. Institutional preparation and linkaging 2. Site selection & validation 3. Baseline community data and mapping 4. Gaining barangay acceptance 5. Integrated provincial planning workshops
I. Formation of the organization 1. Community entry 2. Community profiling and spot mapping 3. Validation of profile and map 4. Formation of core group 5. Requisition for technical assistance in water source site selection and feasibility study 6. Presentation of feasibility study findings 7. HRD (leadership, values formation, teambuilding) training 8. Presentation of draft technical design 9. Prepare legal works 10. Sanitation and hygiene education 11. Presentation of final and technical systems design 12. Tapstand membership	II. Organizational phase 1. Barangay entry and integration 2. Conduct of methodology of participatory assessment 3. Formulation of CO program flag 4. Leadership spotting and development 5. Formation of core/working group and ad hoc committees 6. Formation of proposed barangay action plan 7. Formation of structures/mechanisms for operation and management 8. Pre-construction conference 9. Test-run, adjustment of WATSAN facilities 10. Formulation of WATSAN action plan 11. Skills training 12. Hygiene & environmental sanitation programs in place
II. Development of the organization 13. Formation of tapstand group and formulation of policies 14. Cross visit 15. Gathering of additional documents 16. Organizational management training 17. Pre-construction conference 18. Preliminary construction activities 19. Release and delivery of materials 20. Action planning of the core group regarding mobilization, monitoring and documentation 21. Conduct of facility construction M&E 22. Presentation and consolidation of tapstand policies 23. Finalization and approval of tapstand policies 24. Formulation of management policies, operating procedures, constitution and by-laws 25. Ratification of operating policies, procedures, constitution and by-laws	

USC-WRC	DILG/PCWR-ITN
III. Consolidating the organization 26. Systems test run and operational procedure demonstration 27. Induction of officers 28. Operational and financial management training 29. Planning of the systems management and operations 30. Registration of water association 31. Commencement of facility operation and management 32. Installation of organizational M&E system 33. Linkaging	III. Consolidation Phase 13. Capacity-building activities/training 14. Development of vision/future direction 15. Obtaining legal status 16. Initiation and management of barangay project 17. Formation of SPME ad hoc committee at the municipal level
	IV. Networking, pullout and follow-through 18. Federation building: federation activities 19. Establishment of formal linkages with LGUs, NGOs and other structures 20. Advocacy work

Capacity-building programs recommended for the community vary slightly in each model (see Table 3 on the opposite page). However, they agree on the most basic training requirements (see highlighted trainings in Table 3), which include values formation, organizational, financial and operational management and hygiene and sanitation trainings.

In examining the two models, we have also drawn other insights in implementing potable water projects:

1. Establishing a water system can be straightforward if project implementers have access to technical persons or engineers.
2. Similar CO processes need to be undertaken in implementing Levels I and II water systems. The main difference in Level II systems is the formation of tapstand groups that will ensure that the operation and maintenance of tapstands are shared among community members.
3. Implementation strategies need to address unique conditions. PEF partners have used both models as a reference in implementation, but they have had to adapt the activities and the models to suit their needs.
4. Both models have to adjust to community conditions and the level of preparation of local organizations.

PEF has not only benefited from PCWS-ITNF and USC-WRC expertise. It has managed to tap technical experts from various sectors—including those from the private sector (e.g., COKE Foundation), national government agencies (e.g., DAR, DA staff), local government units (e.g., municipal engineers and planning officers and other non-government agencies (e.g., JVO, other development associates)—with track records in water implementation even before their engagements with PEF. Over time, these groups and individuals also contributed their own inputs and added insights into how PEF should implement water projects. This resource kit thus provides an opportunity to properly document and acknowledge the range of options that implementers can use given their own unique requirement.

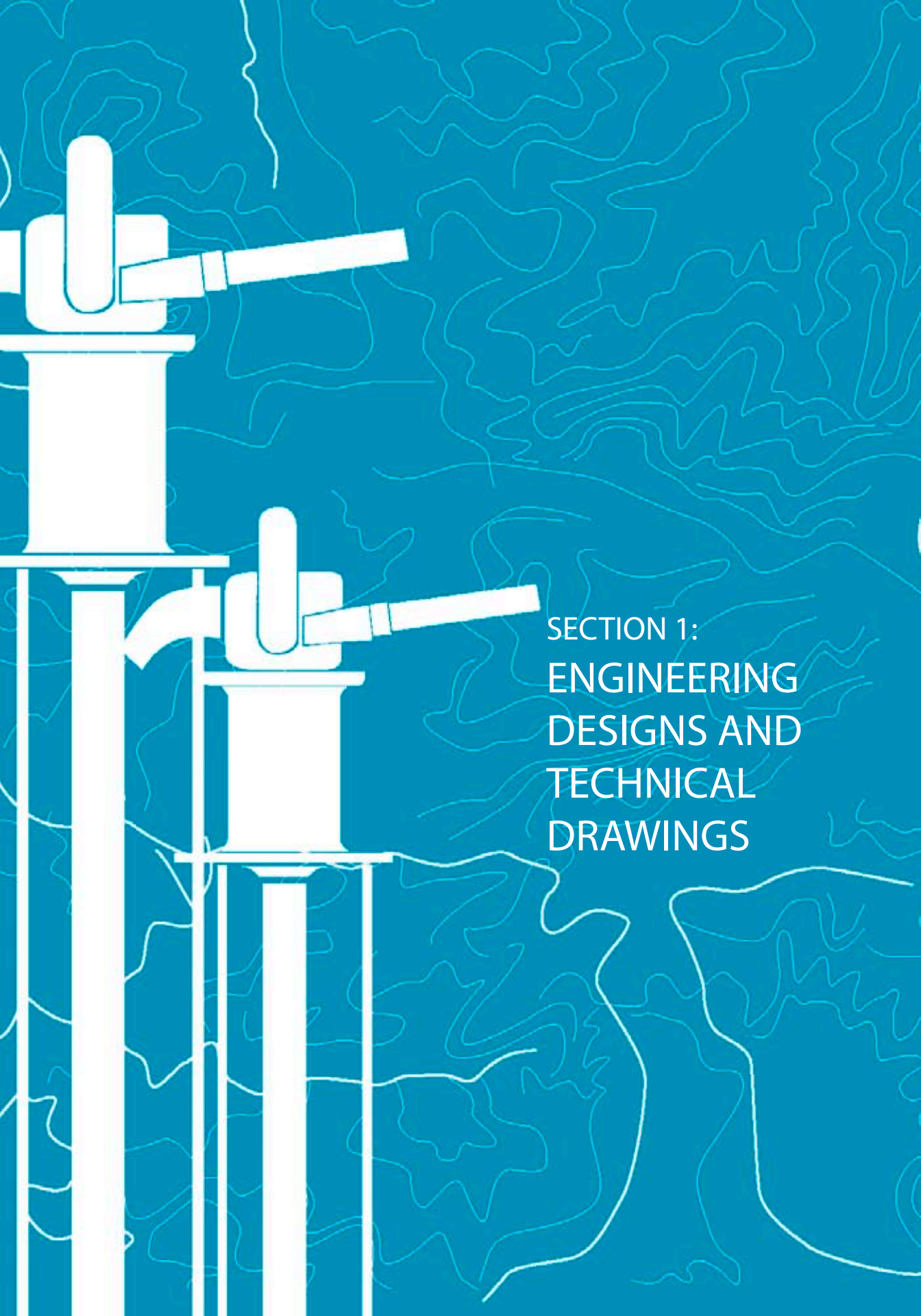
Table 3. Comparison of training programs recommended

USC-WRC	DILG/PCWR-ITN
• Project orientation • Team building, values formation & leadership training • Sanitation and hygiene education • Field cross visit • Organization management training • Operational management training • Financial management training • Income generating project training	Pre-construction conference: technical aspects of project presented to community Skills training: a. leadership training/values formation b. organizational management & bookkeeping c. operation, maintenance and repair of Level 1 water facility d. sanitation & hygiene promotion CB-training for consolidation a. training of trainors b. gender responsiveness c. disease, hygiene, education, health care & sanitation d. excreta, liquid and solid waste disposal
	e. initiation & management of barangay projects f. environmental, sanitation, health and hygiene g. water conservation h. watershed management and protection i. livelihood projects j. resource mobilization

GOVERNMENT AGENCIES IN THE WATER SUPPLY AND SANITATION SECTOR

AGENCY	DEPT OF GOVT	FUNCTIONS/RESPONSIBILITIES
NWRB	DPWH	• Formulation and recommendation of water resource policies • Issuance of water permits, CPC • Regulation of water utilities (except MWSS & WDs)
LWUA	DPWH	• Specialized lending institutions for water districts • Regulates water tariff for WDs
Regulatory Office, MWSS	DPWH	• Regulation of the two MWSS concessionaires, MWC (East Zone, 40 percent) and MWSI (West Zone, 60 percent)
Residual Office, MWSS	DPWH	• Oversee management of MWSS properties • Coordinating office for payment of MWSS loans transferred to the East Zone and West Zone concessionaires
Cooperative Development Authority	OP	• Registration, monitoring of cooperatives nationwide
HLURB	NHA-OP	• Ensure compliance of property developers to provisions requiring installation of water supply facilities in subdivision/condominiums/ low cost housing projects
BOI	DTI	• Granting of incentives for private sector investments • Business name registration
SEC	DOF	• Registration of articles of incorporation
NEDA, infrastructure staff, regional development councils	DOF	• Formulation and approval of water resource policies • Sets direction of economic and social development of regions
DBM		• Determines budget allocation for all government agencies
Project Management Office (PMO)– Rural Water Supply	DPWH	• Planning, design and construction of locally funded and foreign assisted rural water supply projects
PMO- Small Water Impounding Projects (SWIM)	DPWH	• Planning, design and construction of locally funded and foreign-assisted SWIM projects

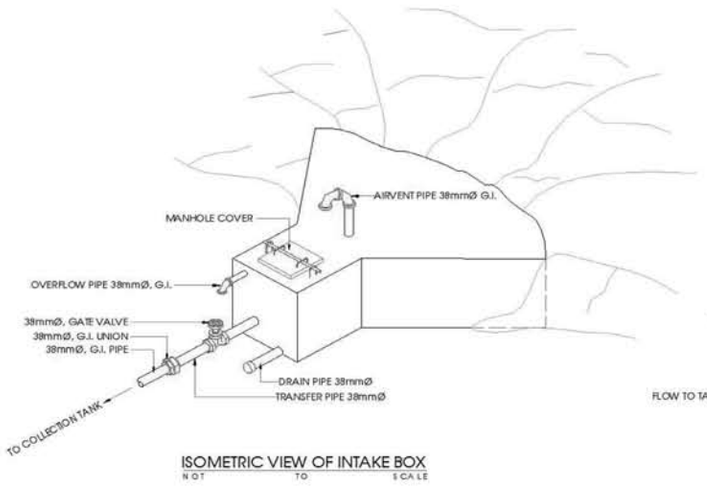
AGENCY	DEPT OF GOVT	FUNCTIONS/RESPONSIBILITIES
Environmental Management Bureau	DENR	• Formulation of environment quality standards for water, air, land noise and radiation • Issuance of environmental compliance certificate • Preparation of environmental impact statement
Mines and Geo-Sciences Bureau	DENR	• Monitoring and mapping of ground water resources
Laguna Lake Development Authority	DENR	• Development and management of regional water resources in the Laguna lake catchment area
Environmental Health Service	DOH	• Handles water supply and sanitation programs and strategies to prevent environment-related diseases
Bureau of Research Laboratories	DOH	• Monitoring of drinking water quality • Certifies water quality testing laboratories
PMO-Water Supply and Sanitation	DILG	• Support the provision of water supply and sanitation services by Local Government Units (LGUs)
Provincial, city, municipal government and barangays	DILG	• Coordination with national line agencies and other entities to promote development of water infrastructure • Management of WD



SECTION 1:

ENGINEERING DESIGNS AND TECHNICAL DRAWINGS

FIGURE 1. SPRING INTAKE BOX & REINFORCEMENT DETAILS



ISOMETRIC VIEW OF INTAKE BOX
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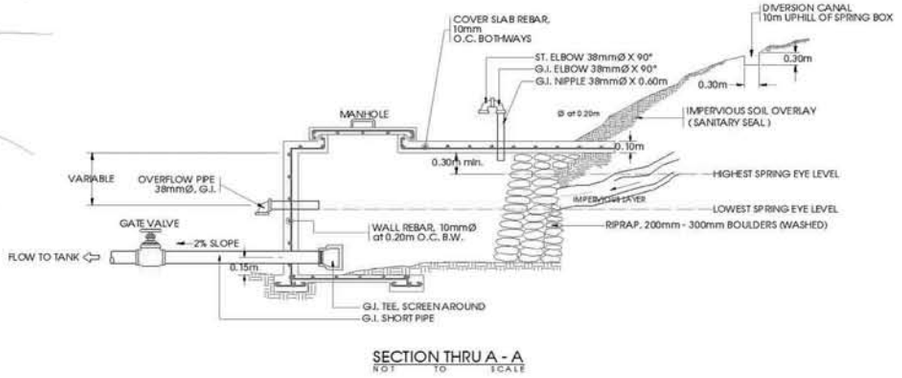

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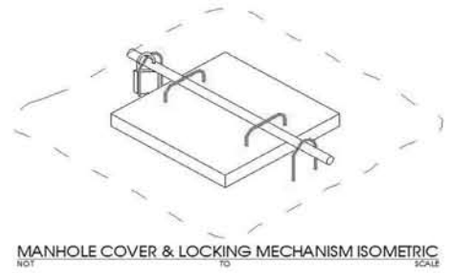

MANHOLE COVER & LOCKING MECHANISM ISOMETRIC
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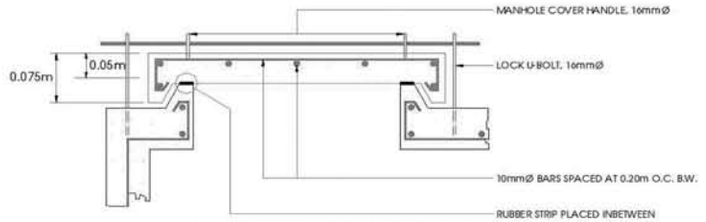

MANHOLE COVER & LOCKING MECHANISM DETAIL
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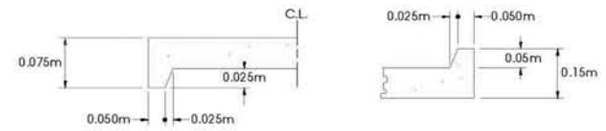

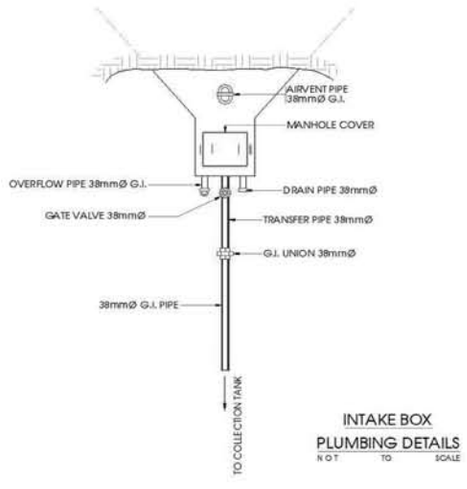

INTAKE BOX
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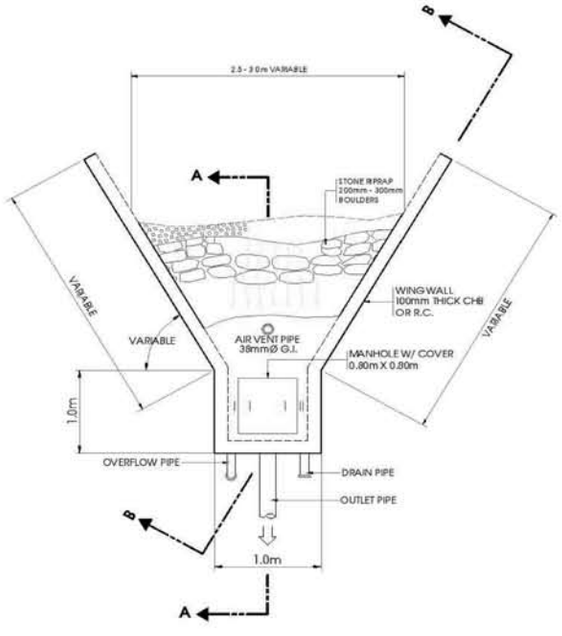

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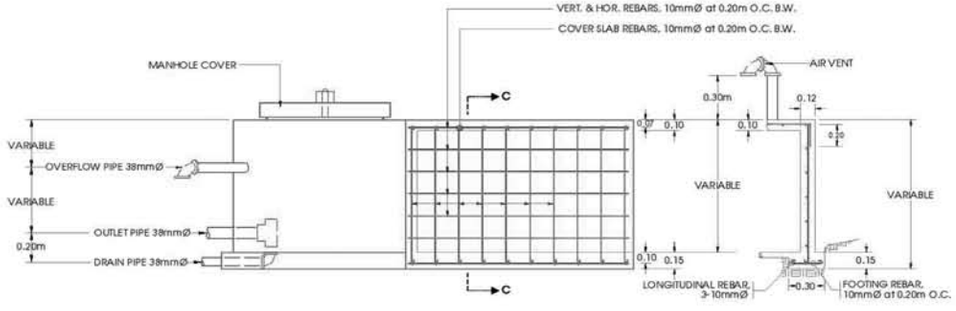

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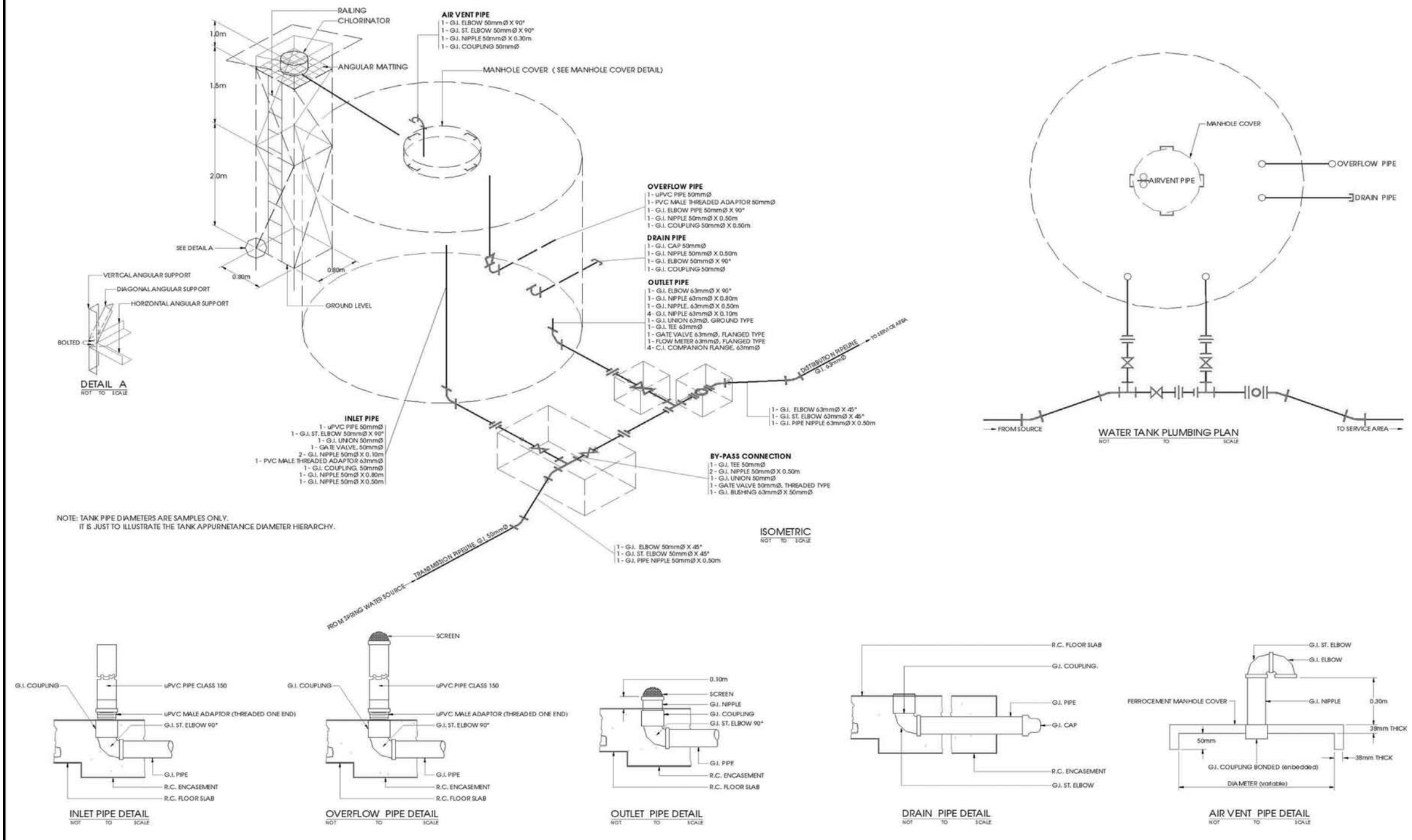
	PEACE AND EQUITY FOUNDATION				SPRING INTAKE BOX & REINFORCEMENT DETAILS SOURCE: UCS-WRCFI	

FIGURE 2. FERROCEMENT WATER TANK DETAILS



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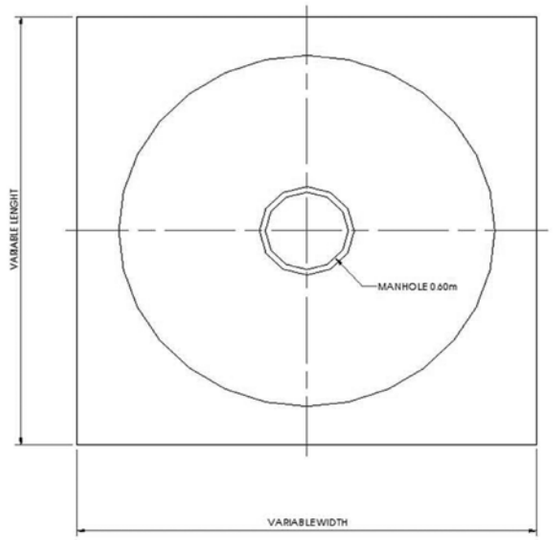
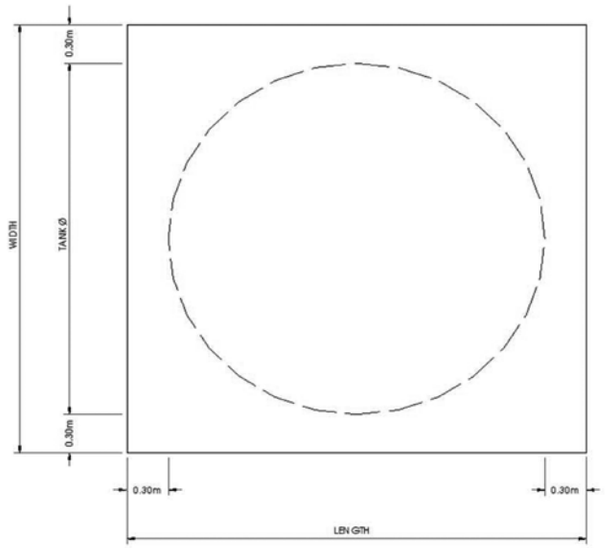
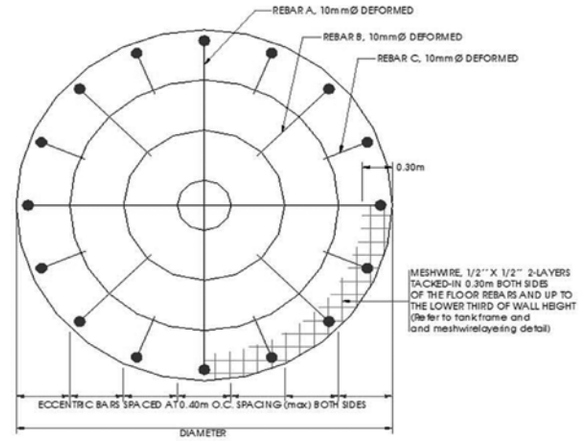
	PEACE AND EQUITY FOUNDATION				FERROCEMENT WATER TANK DETAILS SOURCE: USC-WRCFI	

FIGURE 3. FERROCEMENT WATER TANK DETAILS







FERROCEMENT TANK FLOOR REBAR DETAIL
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FERROCEMENT TANK FOUNDATION DETAIL
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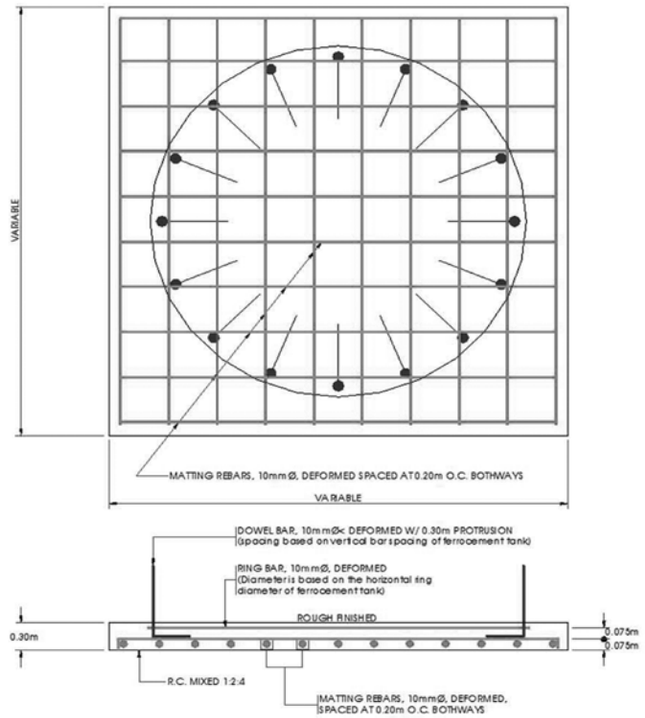

FERROCEMENT TANK FOUNDATION DETAIL
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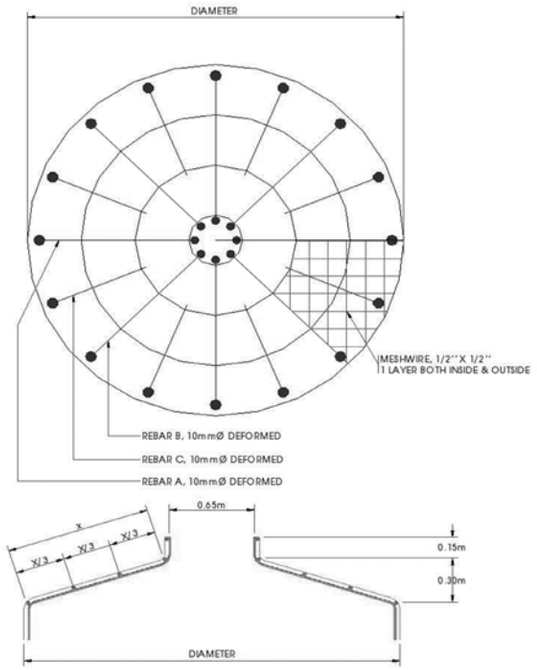
	PEACE AND EQUITY FOUNDATION				FERROCEMENT WATER TANK DETAILS SOURCE: USC-WRCFI	

FIGURE 4. FERROCEMENT WATER TANK DETAILS



FERROCEMENT TANK ROOF REBAR DETAIL
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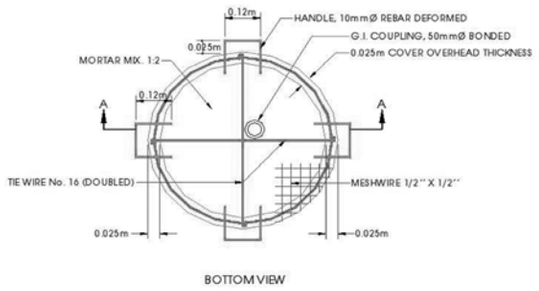
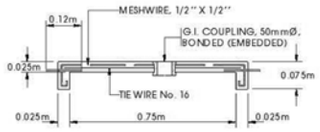


BOTTOM VIEW



SECTION A-A

FERROCEMENT TANK MANHOLE COVER DETAIL
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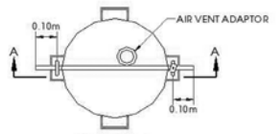
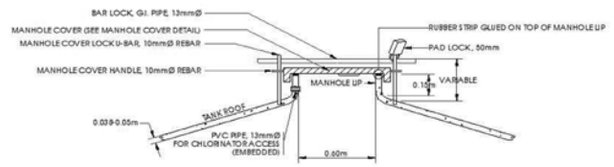


SECTION A-A



SECTION A-A

MANHOLE-MANHOLE COVER-LOCKING MECHANISM DETAIL
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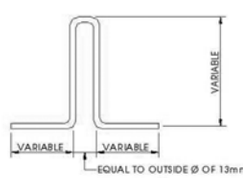

NOTE: FABRICATE ONLY IN-SITE

U-BAR DETAIL
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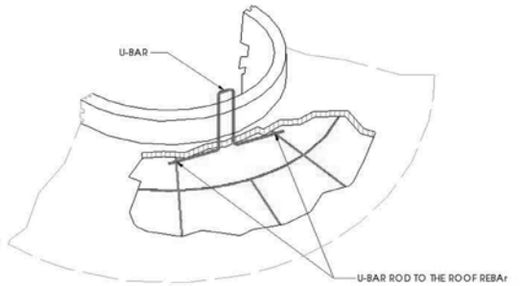
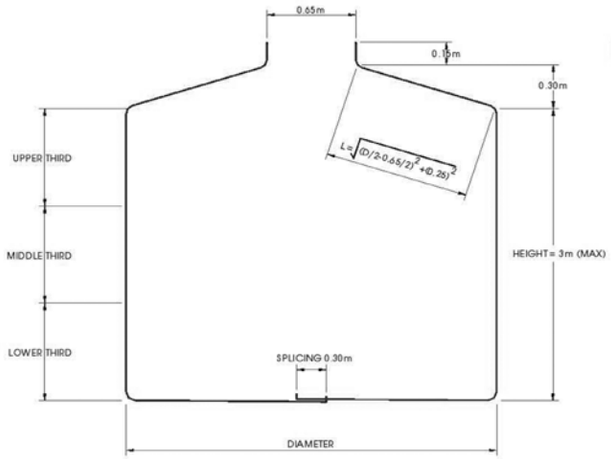
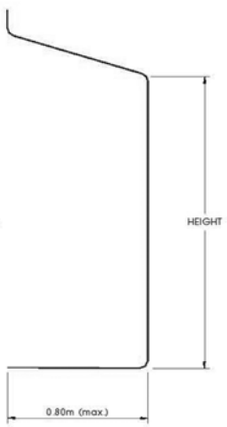


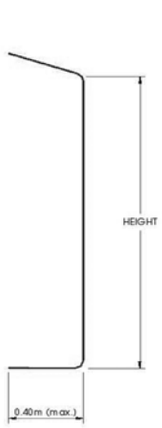
U-BAR ANCHORAGE
NOT TO SCALE



REBAR A DETAIL

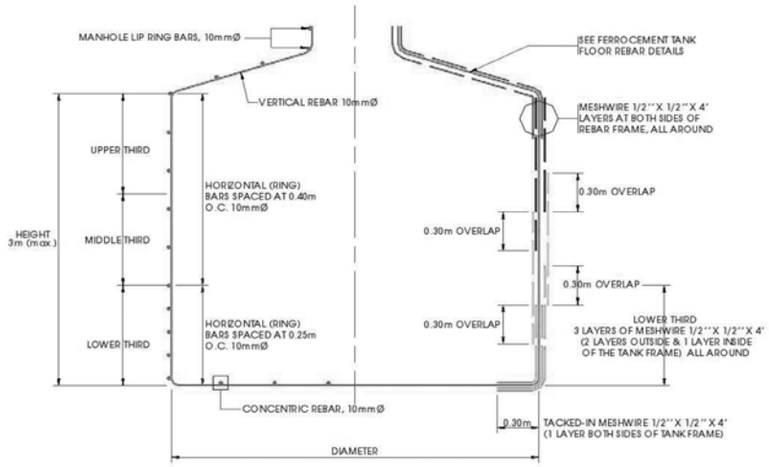


REBAR B DETAIL

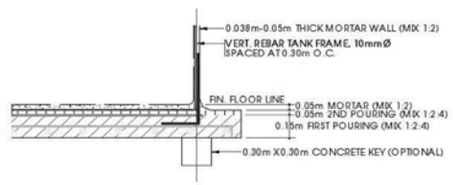


REBAR C DETAIL

VERTICAL REBAR DETAIL
NOT TO SCALE



FERROCEMENT TANK FRAME AND
MESHWIRE LAYERING DETAIL
NOT TO SCALE



NOTES:
ONCE R.C. FOUNDATION FIRST CONCRETE POURING IS READY WITH A ROUGH SURFACE FINISH, THE TANK FRAME W/ TACKED-IN MESHWIRES MAY NOW BE PLACED ON TOP OF IT. VERTICAL BARS OF TANK WALL ALL SHOULD BE TIED TO THE PRE-PLACED FOUNDATION DOWELS. ONCE SECURELY TIED, POUR SECOND LAYER OF CONCRETE, AS SHOWN. THE FINAL MORTAR FLOOR LAYER SHALL ONLY BE PLACED ONCE ALL TANK WALLS & ROOF ARE FINISHED.

FOUNDATION- TANK BODY CONNECTION DETAILS
NOT TO SCALE

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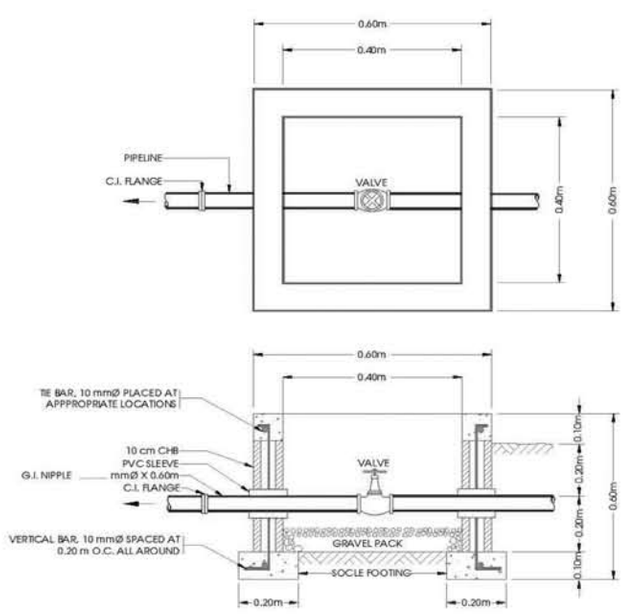
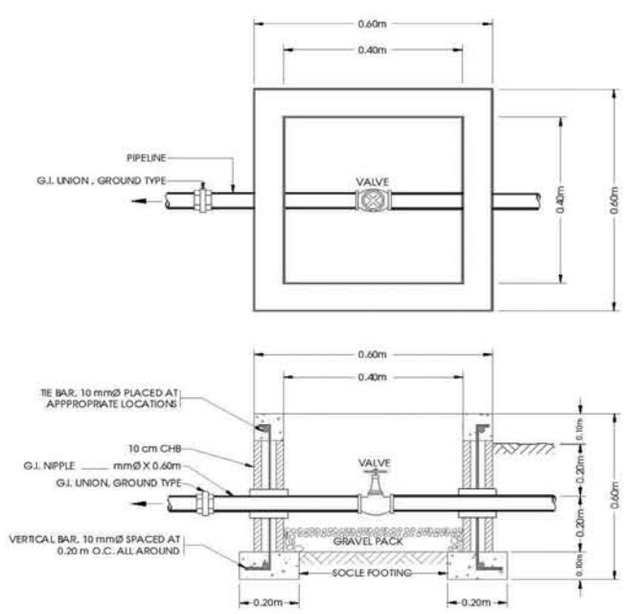
	PEACE AND EQUITY FOUNDATION				FERROCEMENT WATER TANK DETAILS SOURCE: USC-WRCFI	

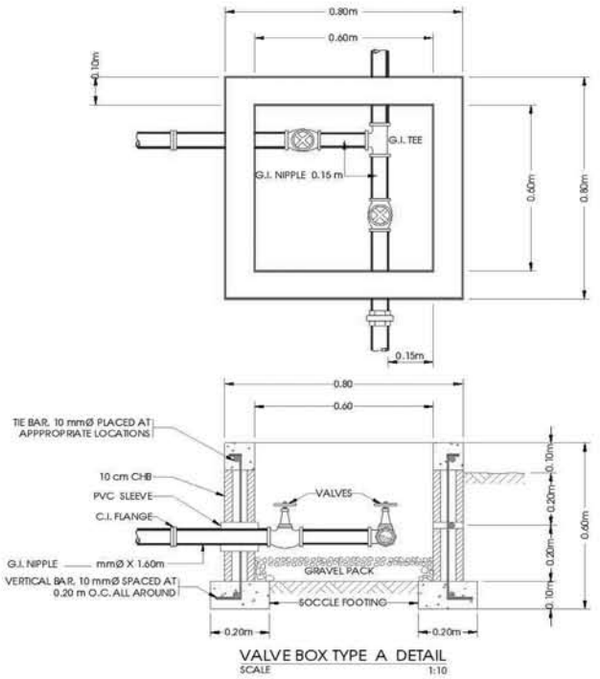
FIGURE 5. VALVE BOX DETAIL



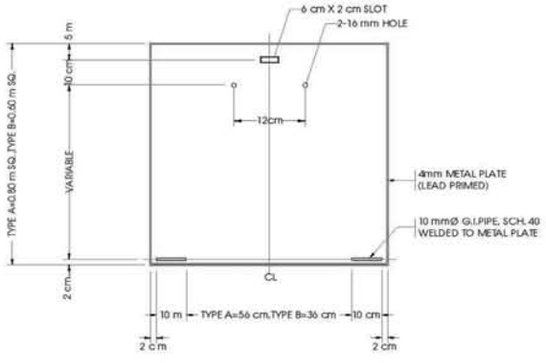
VALVE BOX TYPE B1 DETAIL
SCALE 1:10



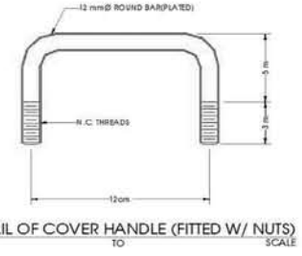
VALVE BOX TYPE B2 DETAIL
SCALE 1:10



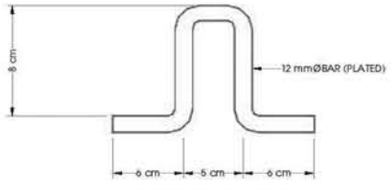
VALVE BOX TYPE A DETAIL
SCALE 1:10



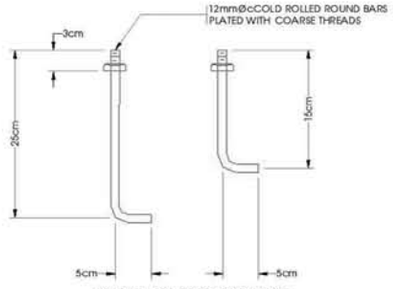
METAL PLATE VALVE BOX FOR TYPE A AND TYPE B
NOT TO SCALE



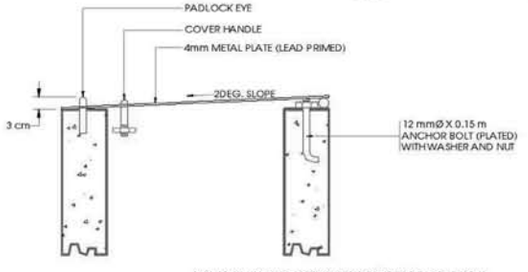
DETAIL OF COVER HANDLE (FITTED W/ NUTS)
NOT TO SCALE



DETAIL OF LOCK EYE
NOT TO SCALE



DETAIL OF ANCHOR BOLT
SCALE 1:4



VALVE BOX COVER MOUNTING DETAIL
NOT TO SCALE

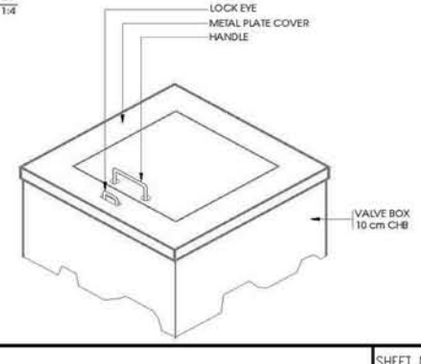


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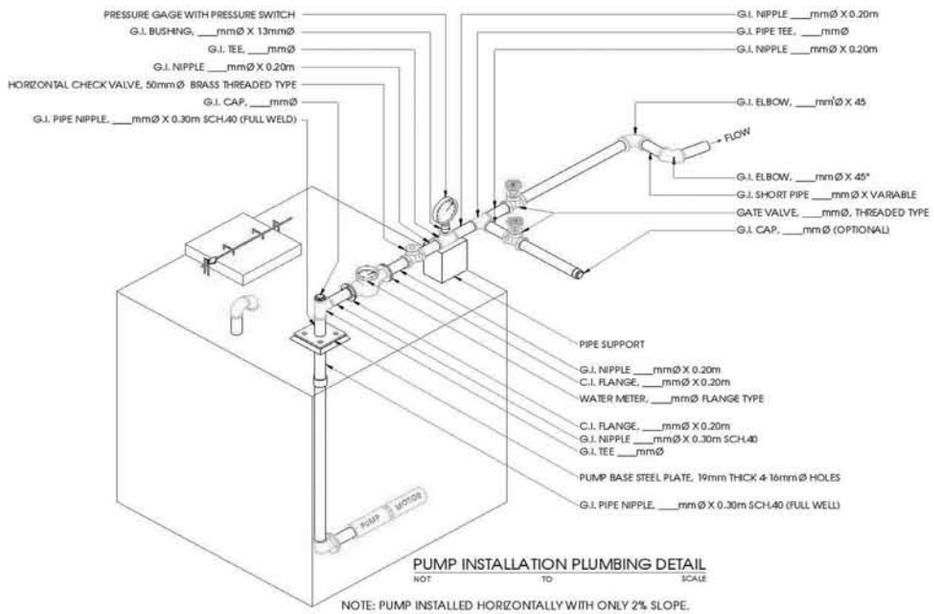
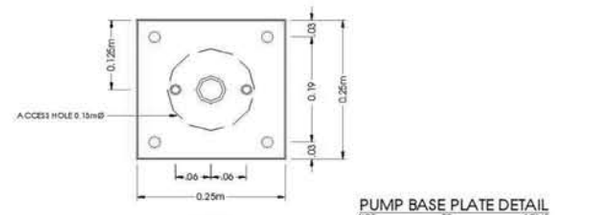
FIGURE 6. UNDERGROUND COLLECTION TANK REINFORCEMENT AND PUMP BASE PLATE DETAILS

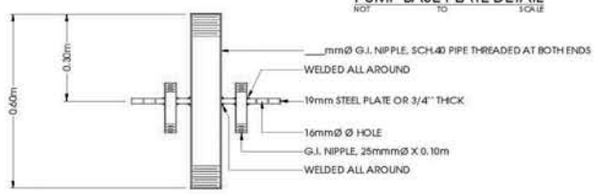


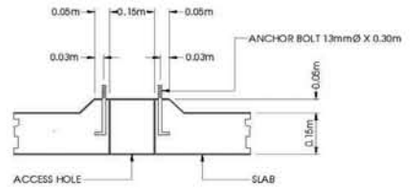
PUMP INSTALLATION PLUMBING DETAIL
NOT TO SCALE

NOTE: PUMP INSTALLED HORIZONTALLY WITH ONLY 2% SLOPE. THIS IS TECHNICALLY DONE TO MAXIMIZE THE VOLUME OF EXTRACTED WATER AND PUMP SUBMERGENCE.

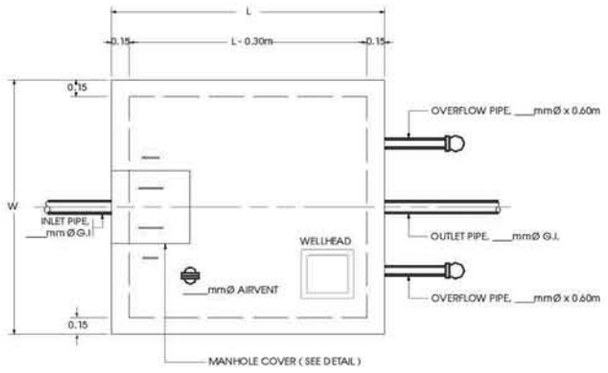


PUMP BASE PLATE DETAIL
NOT TO SCALE

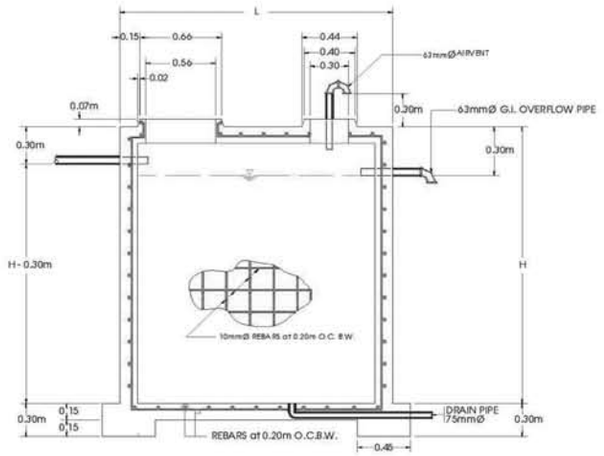




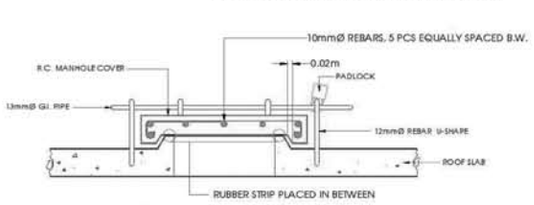
BASE PLATE PEDESTAL
NOT TO SCALE



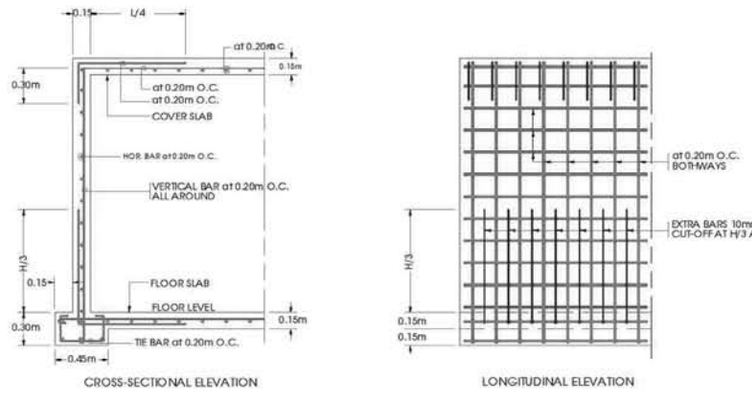
PLAN OF R.C. COLLECTION TANK
NOT TO SCALE



TANK PLUMBING DETAILS
NOT TO SCALE



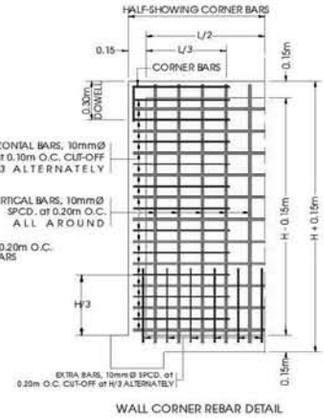
MANHOLE COVER LOCKING MECHANISM DETAIL
NOT TO SCALE



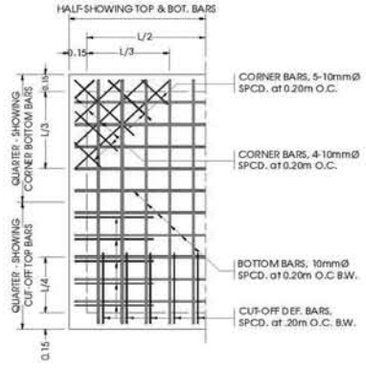
CROSS-SECTIONAL ELEVATION

LONGITUDINAL ELEVATION

REINFORCING BARS DETAIL
SCALE 1 : 25

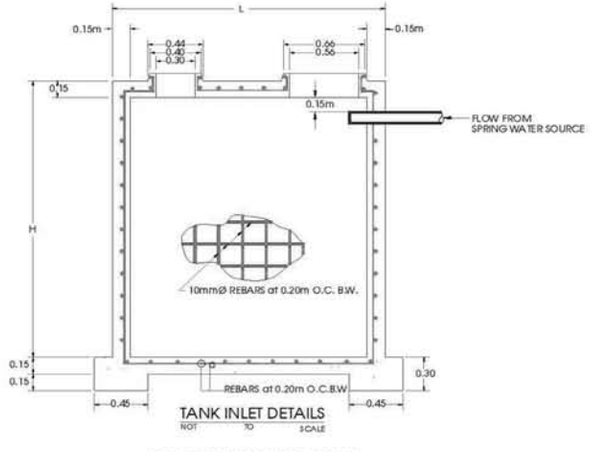


WALL CORNER REBAR DETAIL



ROOF SLAB REBAR DETAIL

WALL CORNER REBAR DETAIL
SCALE 1 : 25



TANK INLET DETAILS
NOT TO SCALE

NOTE: ALL DIMENSION ARE IN METERS.

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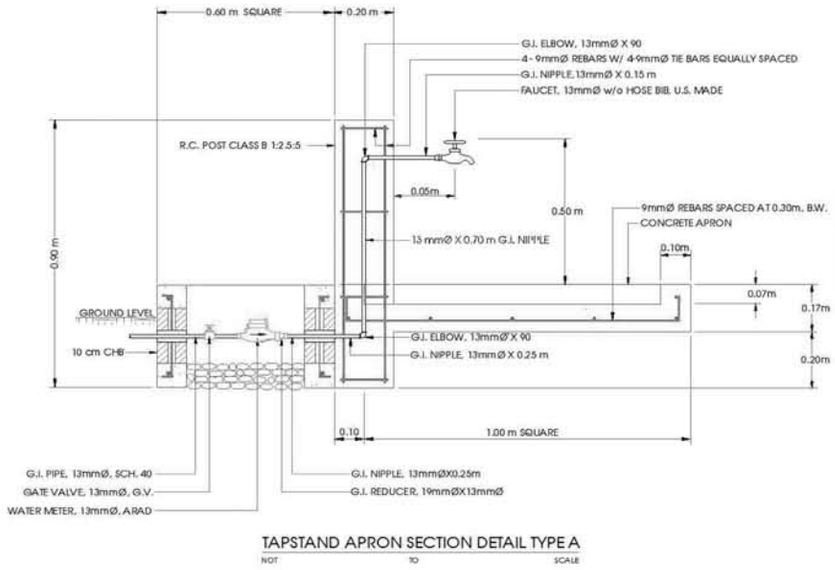
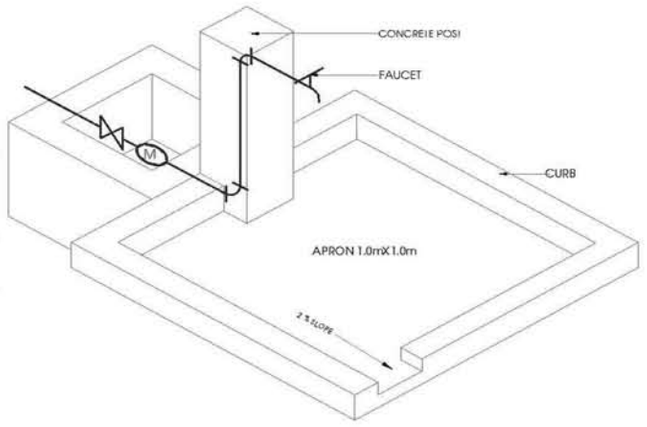
	PEACE AND EQUITY FOUNDATION				UNDERGROUND COLLECTION TANK REINFORCEMENT AND PUMP BASE PLATE DETAILS SOURCE: USC-WRCFI	

FIGURE 7. TAPSTAND CONSTRUCTION DETAILS



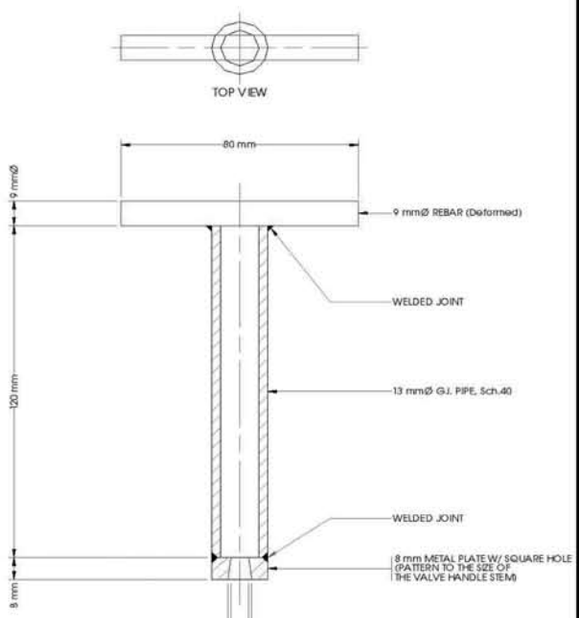
TAPSTAND APRON SECTION DETAIL TYPE A

NOT TO SCALE



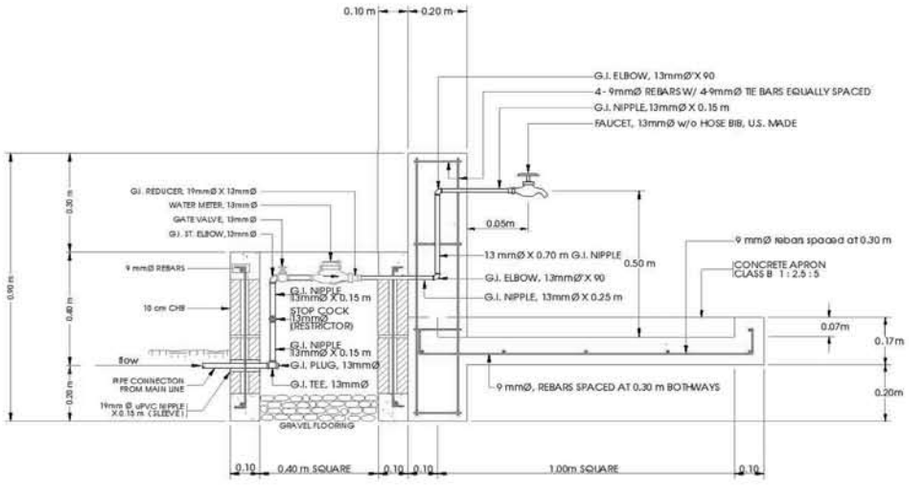
TAPSTAND APRON TYPE A ISOMETRIC

NOT TO SCALE



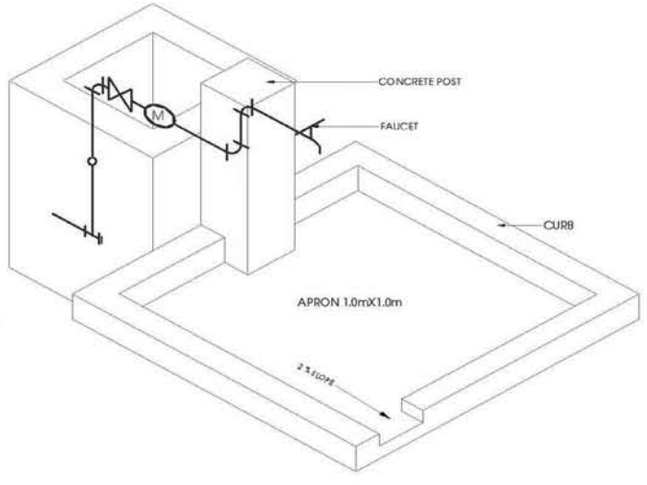
VALVE SOCKET

SCALE 1:1



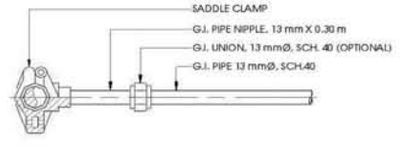
TAPSTAND APRON SECTION DETAIL TYPE B

NOT TO SCALE



TAPSTAND APRON TYPE B ISOMETRIC

NOT TO SCALE



SERVICE PIPELINE CONNECTION DETAIL

NOT TO SCALE

NOTE: •METER BOX PROVIDES MPROTECTION AGAINST VANDALISM, STEALING OF WATER AND UNAUTHORIZED OPERATION OF TAPSTAND.
•METER BOX FLOORING MUST BE GRAVEL PACKED (NOT CONCRETED) TO FACILITATE SEEPAGE OF LEAKAGE WATER.
•ARAD METER BRAND IS RECOMMENDED FOR IT CAN BE CLEANED, REPAIRED AND REUSED.

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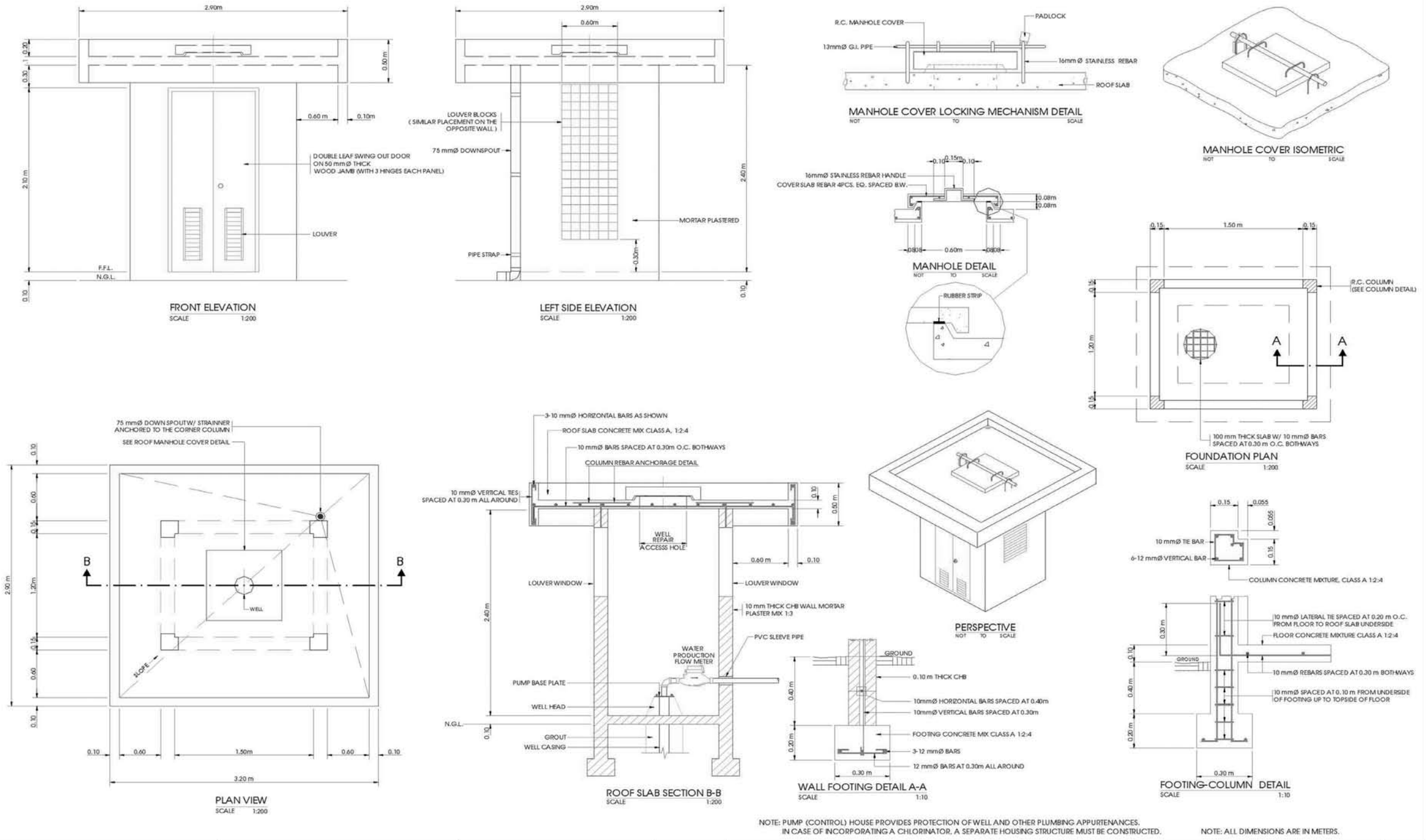
	PEACE AND EQUITY FOUNDATION				TAPSTAND CONSTRUCTION DETAILS SOURCE: USC-WRCFI	

FIGURE 8. PUMP (CONTROL) HOUSE STRUCTURAL DETAILS



NOTE: PUMP (CONTROL) HOUSE PROVIDES PROTECTION OF WELL AND OTHER PLUMBING APPURTENANCES.
IN CASE OF INCORPORATING A CHLORINATOR, A SEPARATE HOUSING STRUCTURE MUST BE CONSTRUCTED.

NOTE: ALL DIMENSIONS ARE IN METERS.

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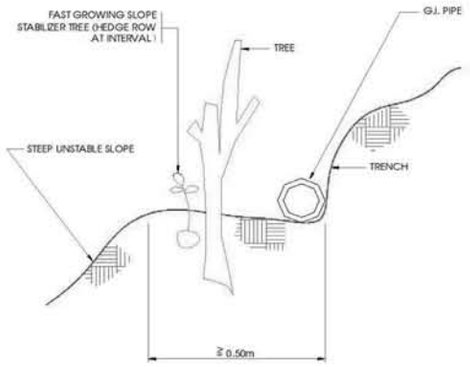
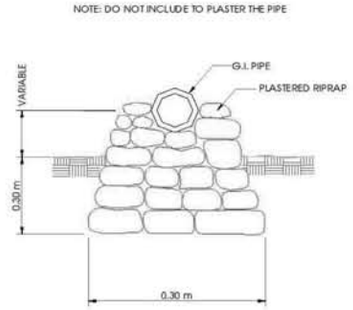
	PEACE AND EQUITY FOUNDATION				PUMP (CONTROL) HOUSE STRUCTURAL DETAILS SOURCE: USC-WRCFI	

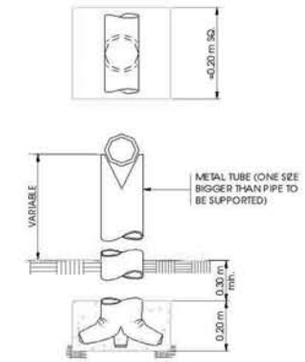
FIGURE 9. PIPE SUPPORT AND PIPELINE TRENCH CONSTRUCTION DETAILS



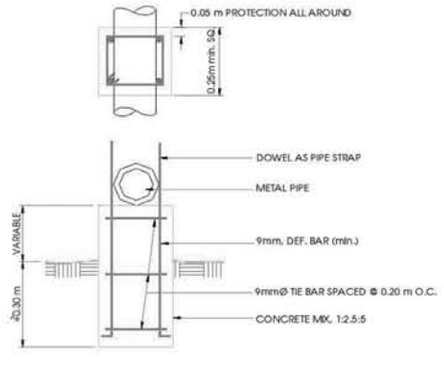
DET. OF SUPPLEMENTARY
PIPE SIDESLOPE CUT SUPPORT
NOT TO SCALE



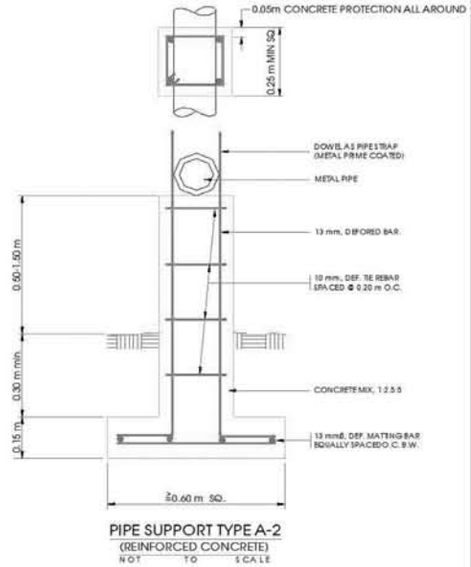
DET.OF SUPPLEMENTARY PIPE
RIPRAP SUPPORT TYPE D
NOT TO SCALE



DETAIL OF SUPPLEMENTARY PIPE
METAL TUBE SUPPORT TYPE C
NOT TO SCALE

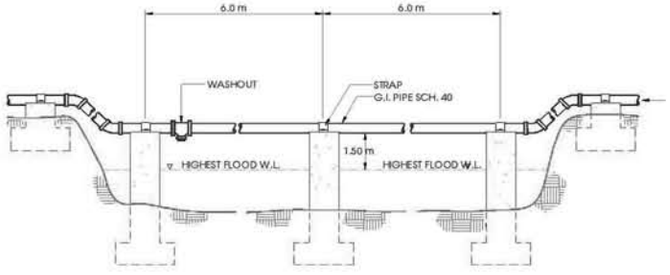


PIPE SUPPORT TYPE B
(REINFORCED CONCRETE)
NOT TO SCALE

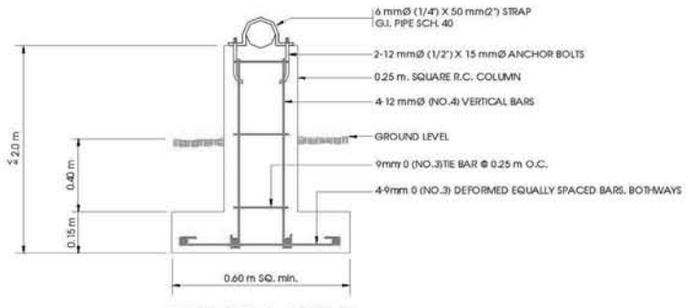


PIPE SUPPORT TYPE A-2
(REINFORCED CONCRETE)
NOT TO SCALE

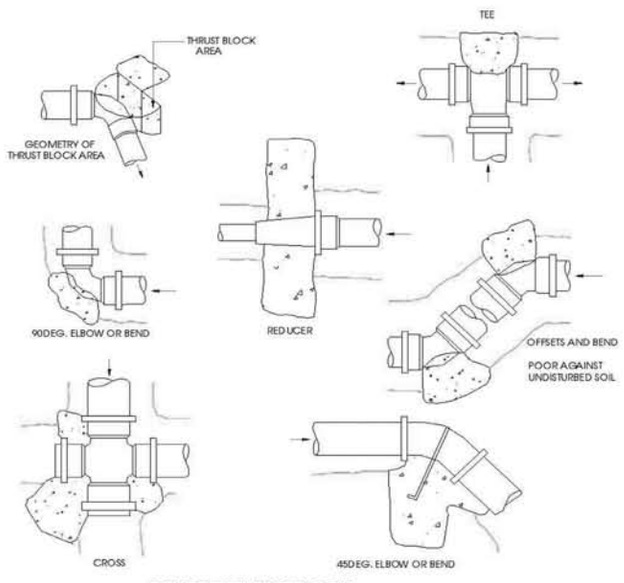
PIPELINE SUPPORT METHODS



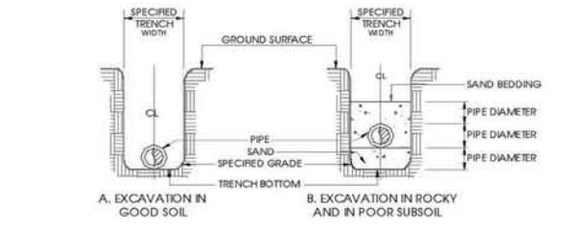
INSTALLATION OF G.I. PIPE ACROSS A STEEP WATERWAY
(FLOW VELOCITY OF WATER 0.20 METER/SECOND)
NOT TO SCALE

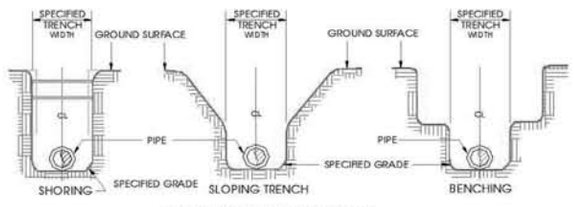


DETAIL OF R.C. COLUMN
PIPE SUPPORT TYPE A1
NOT TO SCALE



CONCRETE THRUST BLOCKS
NOT TO SCALE





NOMINAL SIZE (mm)	TRENCH WIDTH (M)	NOMINAL SIZE (mm)	TRENCH WIDTH (M)
13	0.30-0.60	50	0.30-0.60
19	0.30-0.60	63	0.30-0.60
25	0.30-0.60	75	0.60
31	0.30-0.60	100	0.60
38	0.30-0.60	150	0.70

STANDARD TRENCH WIDTH FOR PVC AND G.I. PIPE

CONSTRUCTION OF PIPELINE TRENCHES AND BACK FILLING
NOT TO SCALE

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	PEACE AND EQUITY FOUNDATION				PIPE SUPPORT AND PIPELINE TRENCH CONSTRUCTION DETAILS SOURCE: USC-WRCFI	

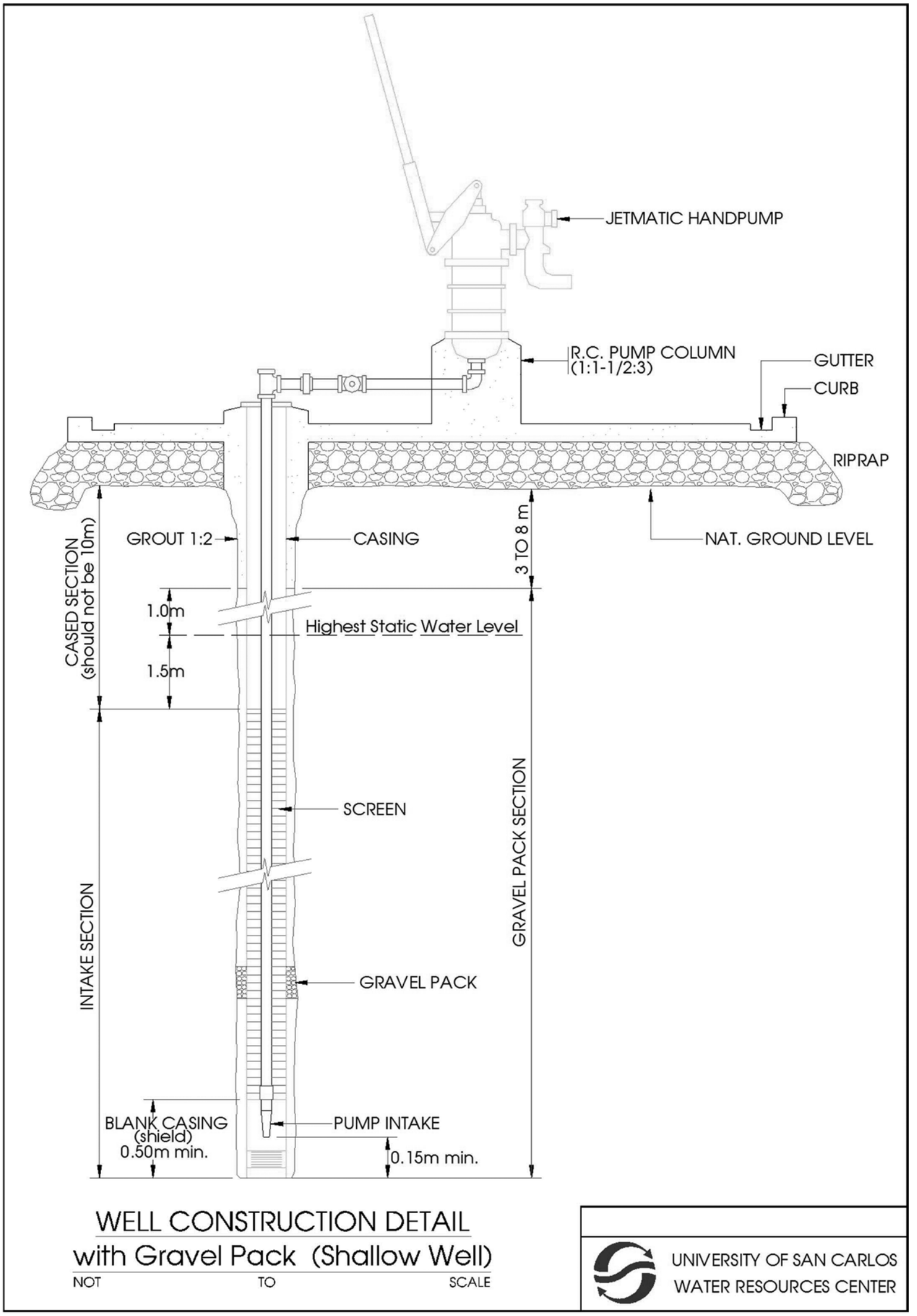
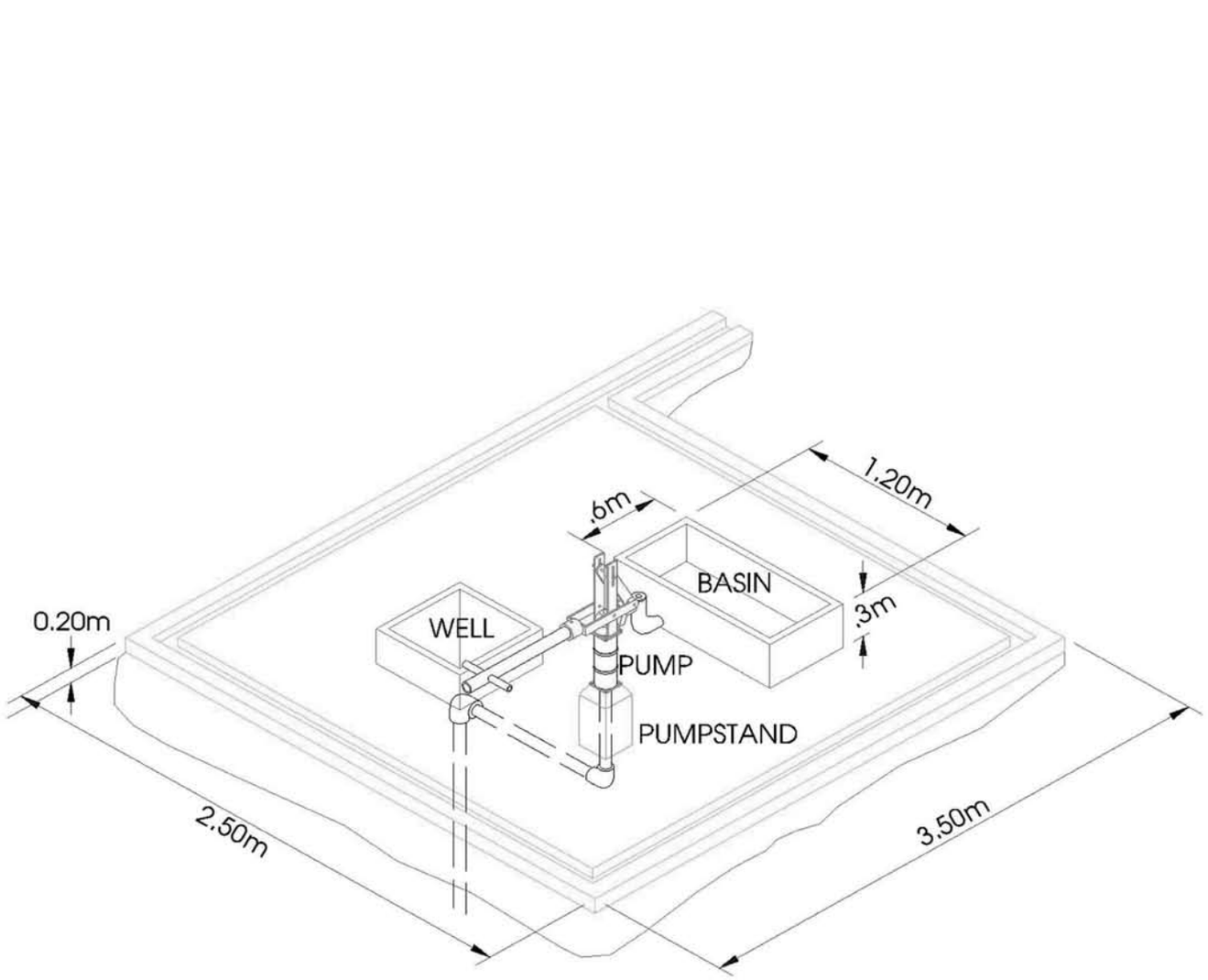


FIGURE 10. WELL CONSTRUCTION DETAIL WITH GRAVEL PACK (SHALLOW WELL)

FIGURE 11. LAYOUT OF PUMP SITE



LAY-OUT OF PUMP SITE
NOT TO SCALE

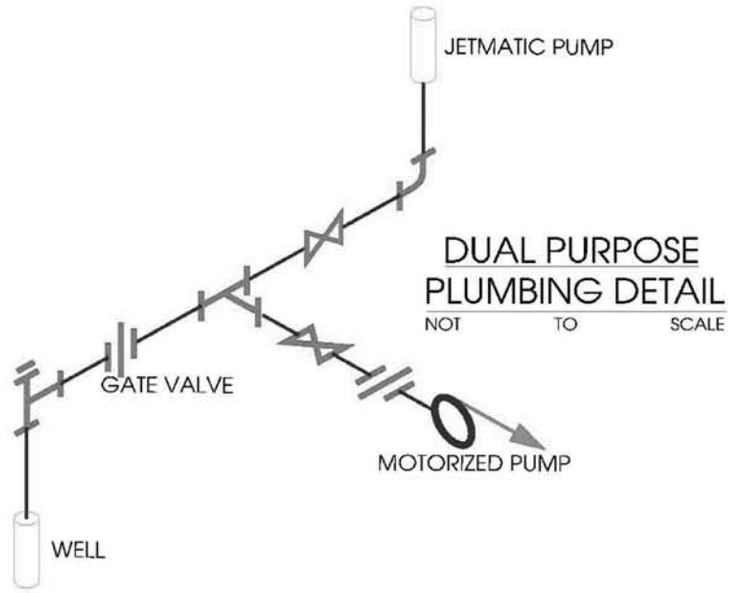


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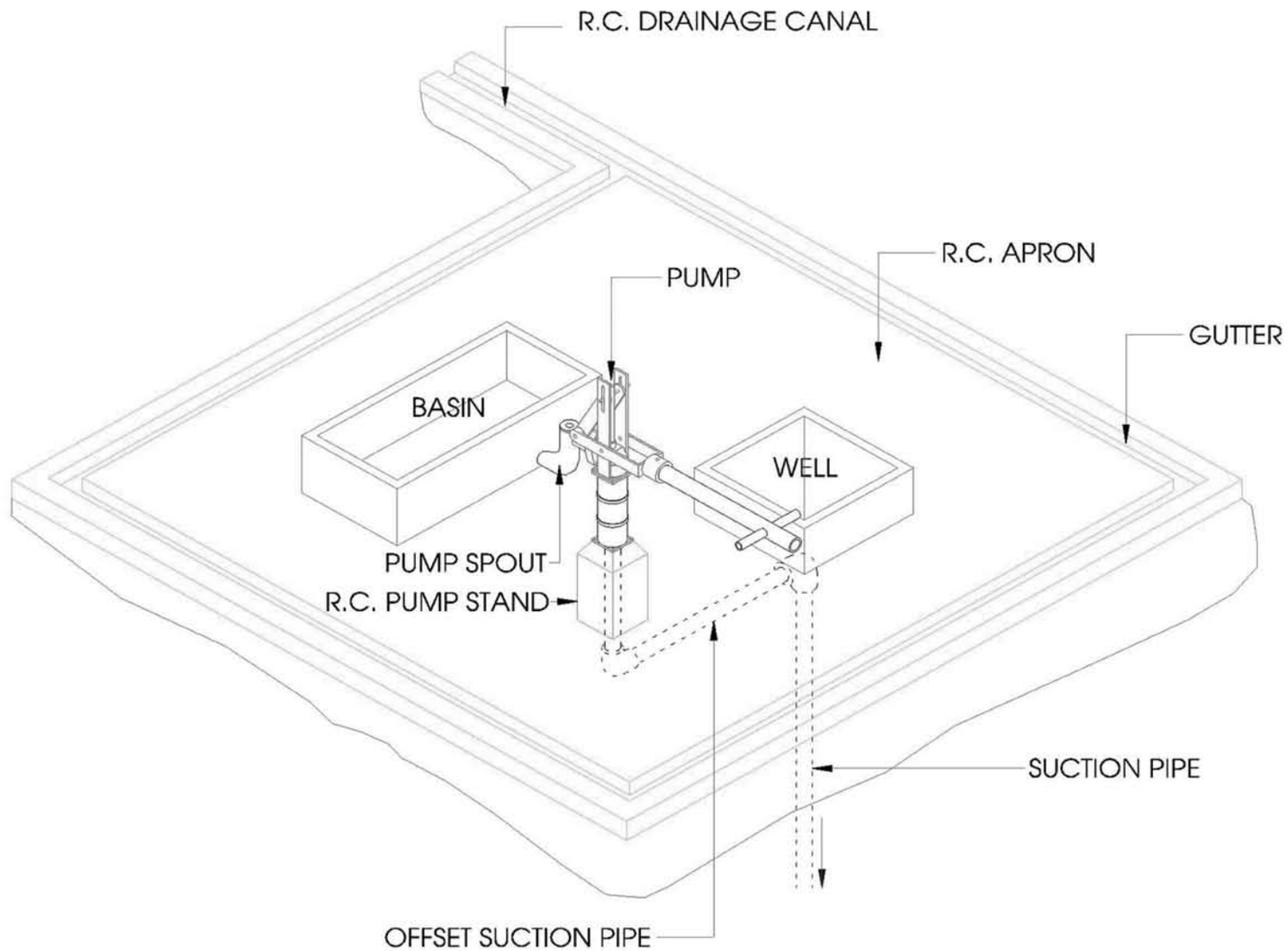
FIGURE 12. LAYOUT OF SHALLOW HANDPUMP ON AN OPEN DUG WELL (JETMATIC) SITE



LAY-OUT OF SHALLOW HANDPUMP ON AN OPEN DUG WELL (Jetmatic) SITE

NOT NOT NOT

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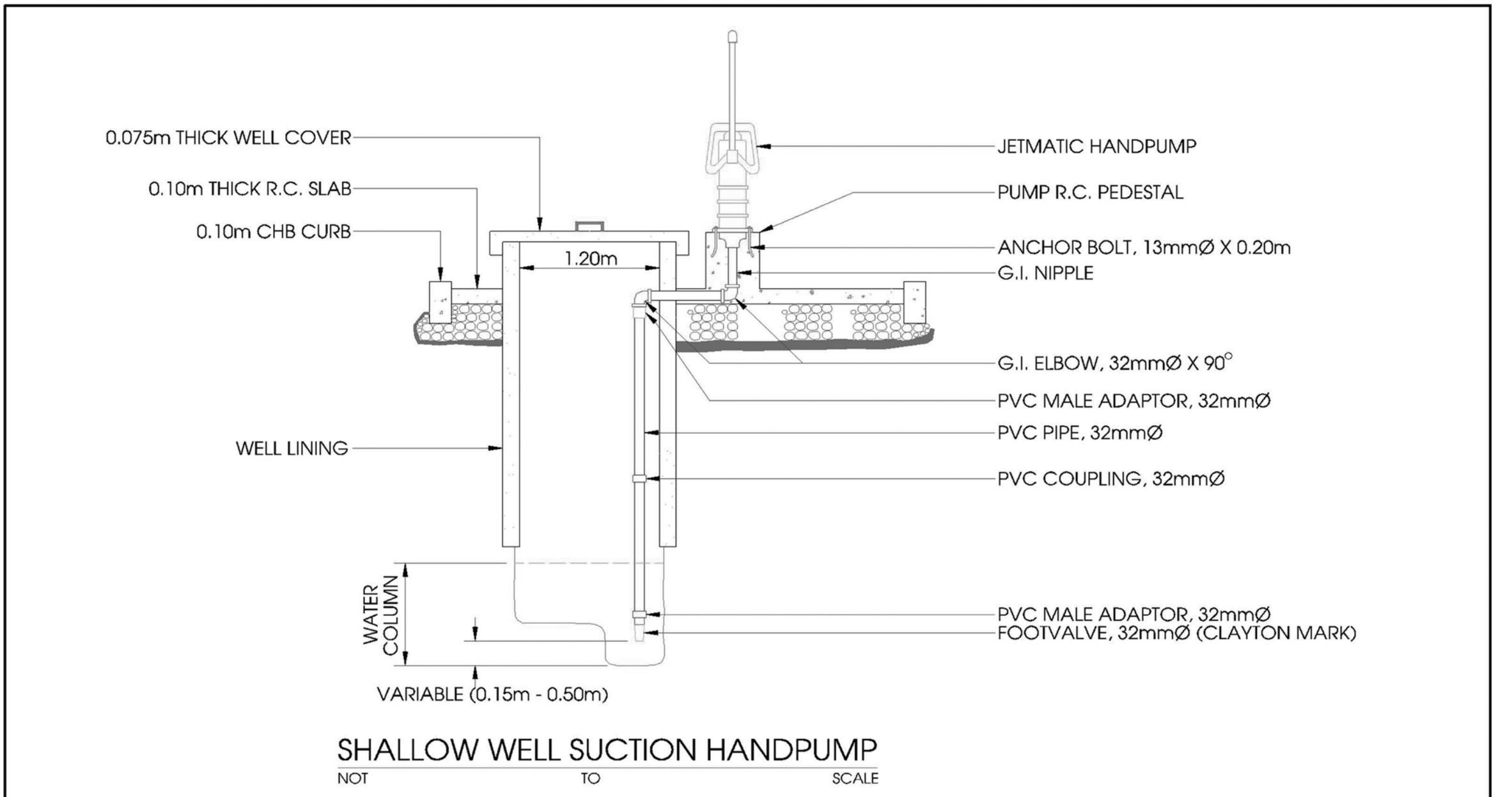
FIGURE 13. SHALLOW WELL SUCTION HANDPUMP



SHALLOW WELL SUCTION HANDPUMP

NOT TO SCALE

NOTE : FOR THIS PUMP DESIGN TO BE EFFICIENT, THE DEPTH OF STATIC WATER LEVEL FROM THE PUMP SPOUT MUST NOT EXCEED 9.0m (30ft.).

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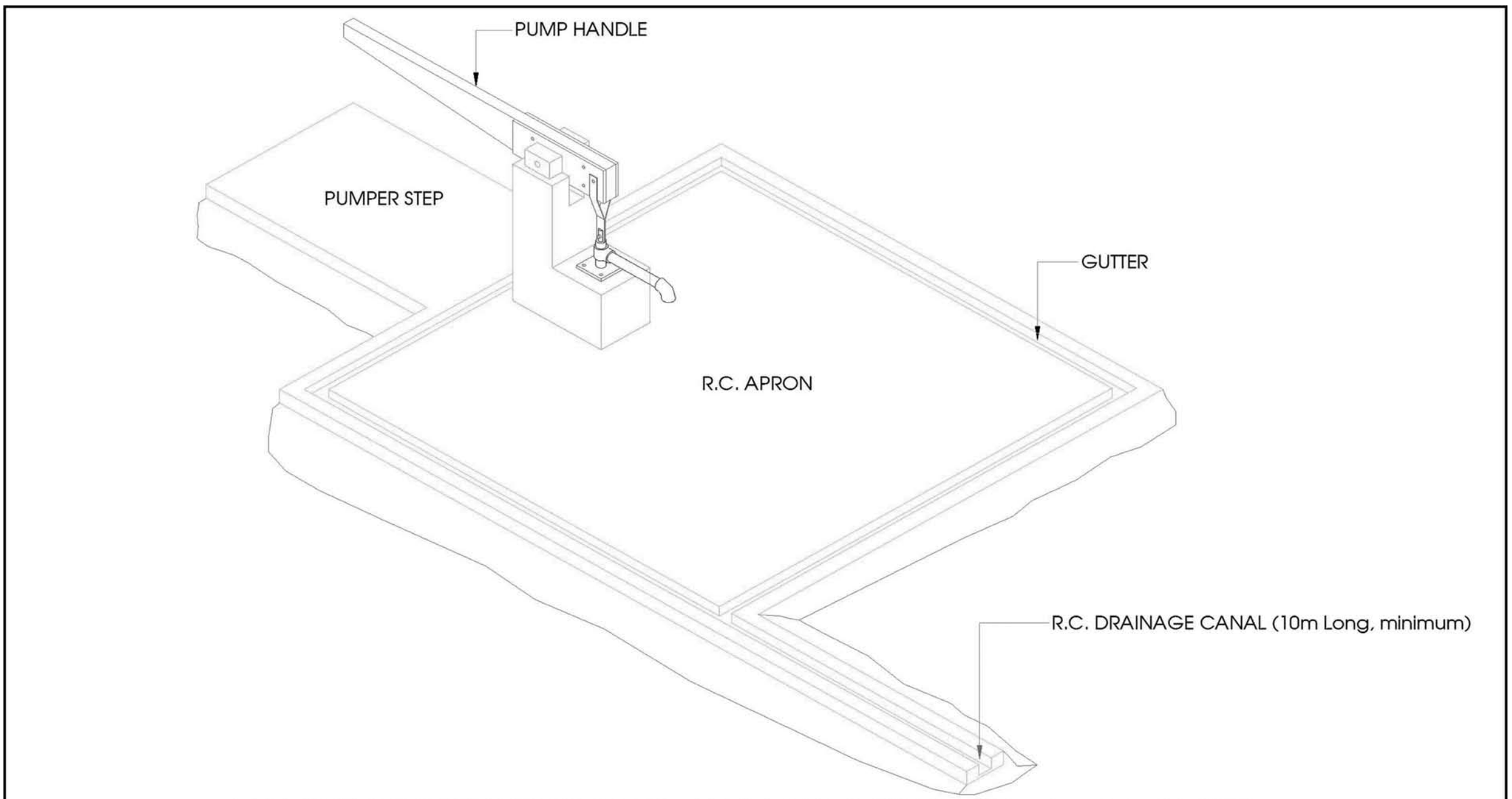
FIGURE 14. LAY-OUT OF DEEPWELL "MAGSAYSAY" HANDPUMP (CLAYTON MARK) SITE



LAY-OUT OF DEEPWELL" MAGSAYSAY" HANDPUMP (Clayton Mark) SITE

NOT TO SCALE

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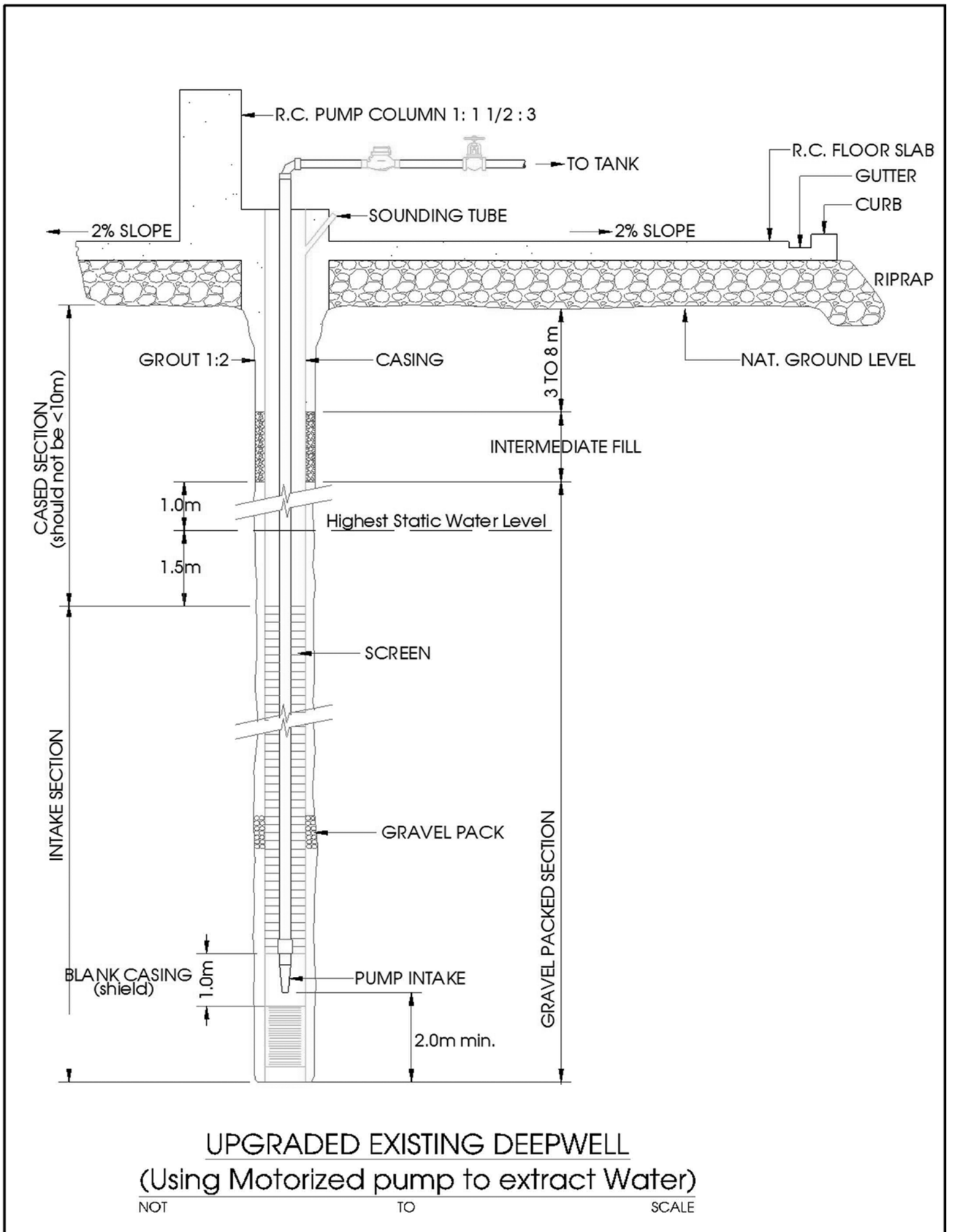
WATER RESOURCES CENTER



UPGRADED EXISTING DEEPWELL
(Using Motorized pump to extract Water)

NOT TO SCALE

NOTE: THIS IS RECOMMENDED ONLY FOR EXISTING WELLS (Drilled) WITH A HIGH AQUIFER AND BIGGER CASING (100mmØ and Up)

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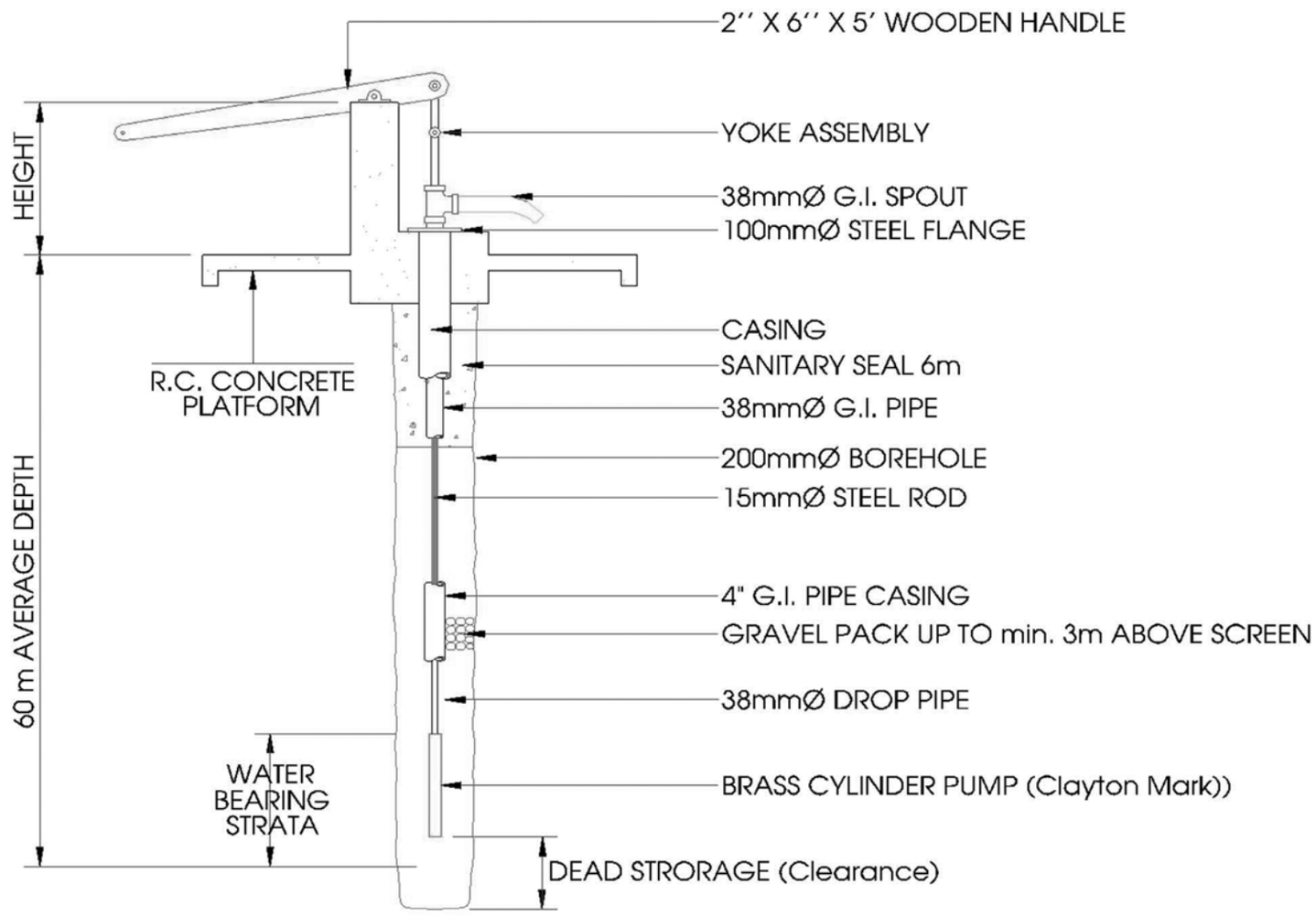
WATER RESOURCES CENTER

FIGURE 15. UPGRADED EXISTING DEEPWELL (USING MOTORIZED PUMP TO EXTRACT WATER)

FIGURE 16. PROPOSED TYPICAL MODEL WATER PUMP SYSTEM (DEEPWELL HEAVY DUTY)



PROPOSED TYPICAL MODEL WATER PUMP SYSTEM (Deepwell Heavy Duty)

NOT TO SCALE

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FIGURE 17. LAYOUT OF SHALLOW HANDPUMP (JETMATIC) SITE

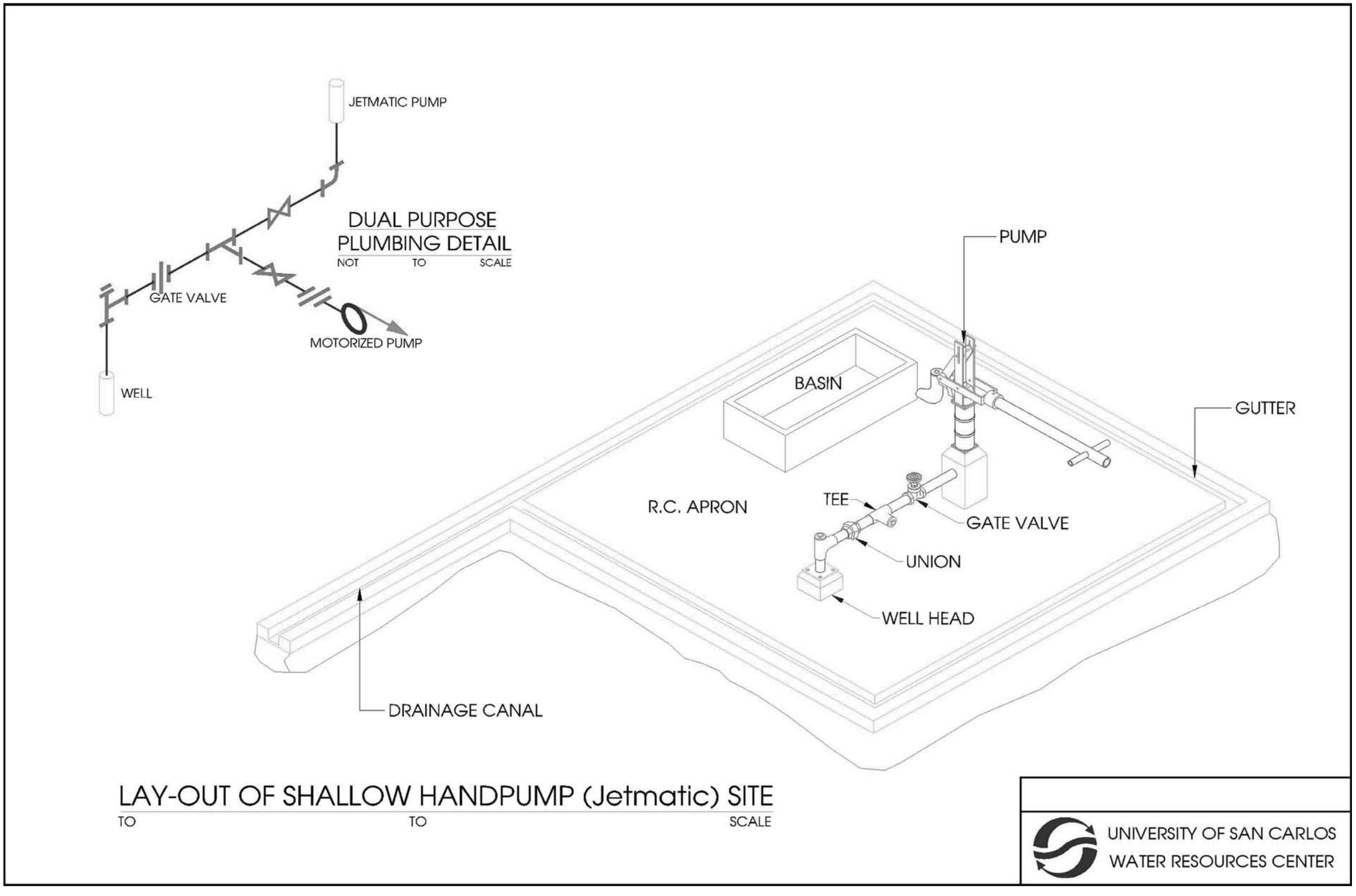
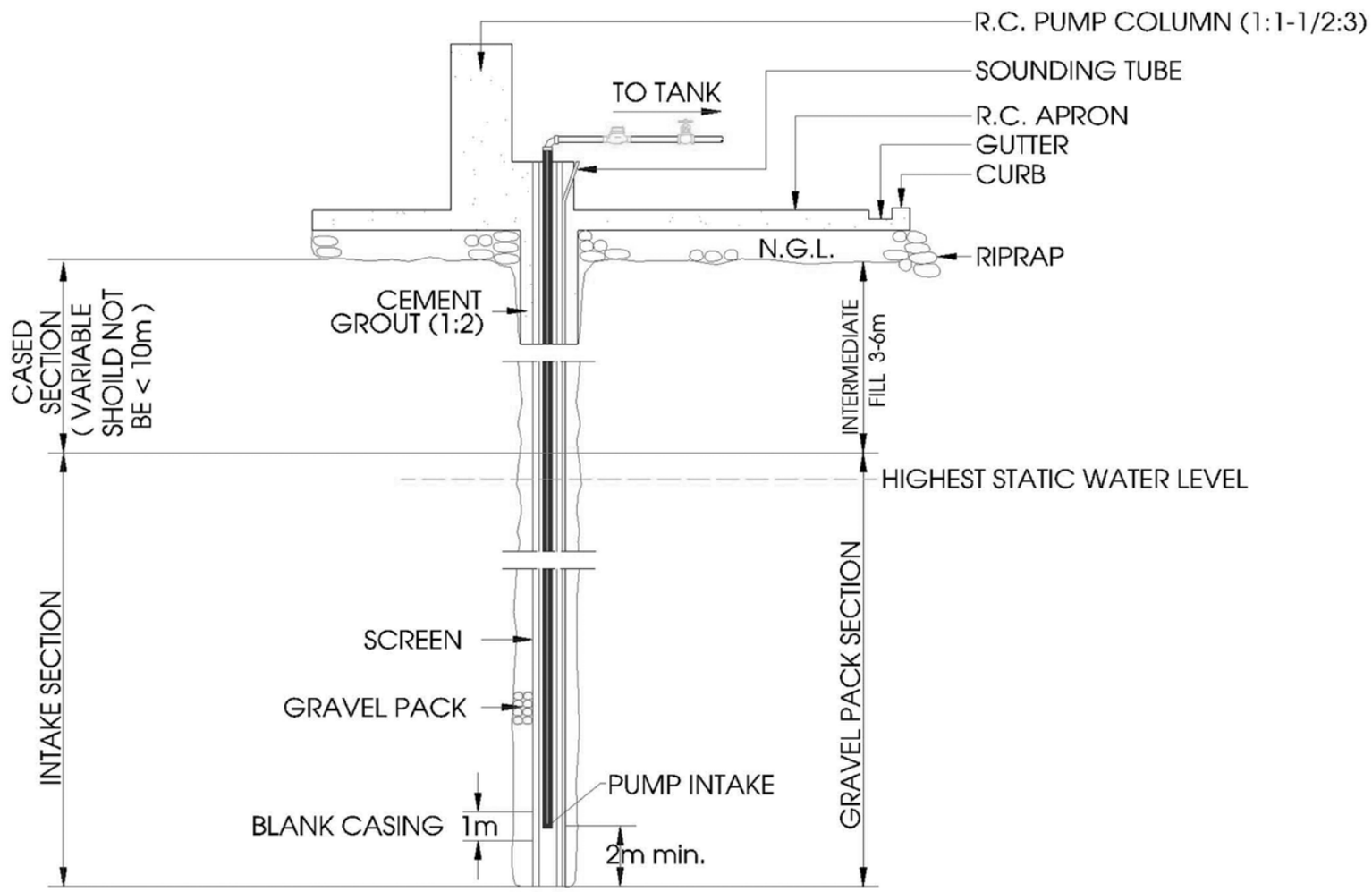


FIGURE 18. STANDARD WELL PLAN (GRAVEL AND GROUT SEALED)



STANDARD WELL PLAN (Gravel and Grout Sealed)

TO TO SCALE

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WATER RESOURCES CENTER

SECTION 1.2
SERVICE LIFE OF TYPICAL WATER SYSTEM COMPONENTS

Average service life is defined as the "average expected life of all units when new". The average service can be based primarily on the past experience and history of the units. The average service life in years illustrated below is presented in ranges as the average service life may vary from area to area.

PARTICULARS	AVERAGE SERVICE LIFE
Wells	20–30
Wells and Booster Pumping Stations	
Pumping Equipment	5–10
Valves	15–30
Electrical Equipment	8–12
Tanks	
Concrete	30–50
Steel	20–35
Valves and Fittings	15–30
Hydro-pneumatic	15–20
Chlorination Equipment	
Concrete (Dripping)	5–10
Automatic feeding	8–10
Structures	
Reinforced Concrete	30
Wood Frame	10
Steel Frame	15–20
Chain Link Fence	10–15
Landscaping	5
Water Meters	5–10
Fire Hydrants	20–25
Transmission and Distribution Mains	
Asbestos Cement	30–50
Steel	
75mm and under	8–15
100mm and over	15–25
Mortar lined and coated	25–35
Cast Iron	30–50
Plastic	30–50
Tools	5–10
Office Equipment	5
Office Furniture and Fixtures	5–10
Vehicles and Transportation Equipment	5–10

Source: *Genzola, B. (2006)*

SECTION 1.3
COMPARATIVE COSTS OF TANKS MADE OF FERROCEMENT, CONCRETE AND HOLLOW BLOCKS

	BUHOS (CONCRETE)		HOLLOW BLOCKS		FERROCEMENT	
MATERIALS	VOLUME/SIZE	PRICE	VOLUME/SIZE	PRICE	VOLUME/SIZE	PRICE
Sand	1.5 cu. m. @ 320.00	480.00	2 cu.m. @ 320.00	640.00	2 cu.m @320.00	640.00
Gravel	2 cu.m. @ 480.00	960.00	1.5 cu.m. @480.00	600.00	.5 cu.m	240.00
Cement	31 bags @ 145.00	4,495.00	25 bags @ 145.00	3,625.00	15 bags @ 145.00	2,175.00
Deformed Bar	52 lght. 12mm @150.00	8,220.00	32 lght. 12mm @150.00			
	4 lghts. 9mm @105.00		6 lghts. 9mm @105.00	5,430.00	0	0.00
Wire Mesh #12X2X6X20	0	0.00		0.00	3 rolls @885.00	2,655.00
GI wire #18	8 kls @ 45.00	270.00	3 kls @ 45.00	135.00	2 kls @ 45.00	90.00
Coco lumber	357 board ft @ 12.00	4,284.00	85 board ft @ 12.00	1,020.00	36 board ft @ 12.00	432.00
Plywood ¼ x 4 x 8	14 shts @ 250.00	3,500.00	6 shts @ 250.00	1,500.00	2 shts @ 250.00	500.00
CW Nails	21 kls. 4" @ 40.00	1,300.00	4 kls. 4" @ 40.00			
	5 kls. 2 ½" @60.00		2 kls. 2 ½" @60.00	320.00	½ kl. 2 ½" @60.00	70.00
	2 kls. 1 ½ "@80.00		½ kl. 1 ½ "@80.00		½ kl. 1 ½ "@80.00	
Sahara cement	31 packs @ 20.00	620.00	16 packs @ 20.00	320.00	15 packs @ 20.00	300.00
Hollow blocks	0	0.00	140 blocks @ 6.00	840.00	0	0.00
GI #22 x 4 x 8	0	0.00	0	0.00	6 shts. @ 720.00	4,320.00
Nylon rope	0	0.00	0	0.00	50 mtrs. @ 5.00/m	250.00
Total Materials		24,129.00		14,430.00		11,672.00
Labor: 60% of total	materials	14,477.40		8,658.00		7,003.20
Total		38,606.40		23,088.00		18,675.00
No. of days with 3 laborers	12 days		7 days		5 days	

Source: *Engr. Jun Orca, Jaime V. Ongpin Foundation*

SECTION 1.4
MATERIALS FOR FERROCEMENT TANKS OF VARIOUS SIZES

	1,000 LITERS	5,000 LITERS	10,000 LITERS	25,000 LITERS
Circumference	3 meters	6 meters	9 meters	13.2 meters
Height	1.4 meters	1.8 meters	1.8 meters	1.8 meters
Radius	0.48 meters	0.95 meters	1.43 meters	2.7 meters
Diameter	0.96 meters	1.97 meters	2.87 meters	4.2 meters
Wire Mesh #12 x 12" x 6' x 20'	1 ½ sheets	3 sheets	5 sheets	10 sheets
Portland Cement	5 bags	15 bags	25 bags	45 bags
Sahara Cement	5 packs	15 bags	25 bags	45 bags
Sand	1 ½ cu. Meter	1 ½ cu. Meter	2 cu. Meters	4 cu. meters
Gravel	¾ ¼ cu. Meter	½ cu. Meter	1 ½ cu. Meters	2 cu. meters
Plywood ¼ x 4 x 8	1 sheet	2 sheets	3 sheets	5 sheets
GI Wire #18	1 kilo	2 kilos	3 kilos	5 kilos
Forms (GI 22 x 4 x 8)	4 sheets	6 sheets	8 sheets	12 sheets
Lumber	20 board feet	36 board feet	57 board feet	120 board feet
CW Nails 2 ½	¼ kilo	½ kilo	¾ kilo	1 kilo
1 ½	¼ kilo	½ kilo	½ kilo	½ kilo
Nylon Rope	30 meters	40 meters	45 meters	60 meters

Source: *Engr. Jun Orca, Jaime V. Ongpin Foundation*

SECTION 1.5
PHILIPPINE NATIONAL STANDARDS FOR DRINKING WATER

	PARAMETERS	MAXIMUM PERMISSIBLE LEVEL
A.	Physical	
	Color (units)	5 units
	Odor, Threshold Odor No. (units)	Not more than 3
	Solids, Total	500 mg/l
	Turbidity, as SiO2 (units)	5 units
B.	Chemical	
	Calcium	75 mg/l
	Chloride	200 mg/l
	Magnesium	50 mg/l
	Nitrate as N	30 mg/l
	Oil and Grease	Nil
	pH	6.5–8.5
	Phenolic Substance	0.001 mg/l
	Sulfate	200 mg/l
C.	Trace Elements	
	Arsenic	0.05 mg/l
	Barium	1.00 mg/l
	Cadmium	0.01 mg/l
	Chromium, Total	0.05 mg/l
	Copper	1.00 mg/l
	Cyanide	0.05 mg/l
	Flouride	0.06 mg/l
	Iron	1.00 mg/l
	Lead	0.05 mg/l
	Manganese	0.50 mg/l
	Mercury	0.002 mg/l
	Selenium	0.01 mg/l
	Zinc	5.00 mg/l
	PARAMETERS	MAXIMUM PERMISSIBLE LEVEL
D.	Radionuclide	
	Alpha emitter, uuc/l	3 (gross alpha)
	Beta emitter, uuc/l	30 (gross beta)
E.	Pesticides	
	Aldrin	0.001 mg/l
	DDT	0.05 mg/l
	Dieldrin	0.001 mg/l
	Chordane	0.003 mg/l
	Endrin	0.0002 mg/l
	Heptachlor	0.0001 mg/l
	Lindane	0.004 mg/l
	Toxaphane	0.005 mg/l
	Methoxychlor	0.10 mg/l
	PCB	Nil
	2, 4 – D	0.10 mg/l
	2, 4, 5 – TP	0.01 mg/l
F.	Bacteriological	Not more than one for treated water
	Coliform, MPN/100 ml	Not more than 3 for untreated water

Source: *NWRB*

SECTION 1.6
COMPUTING WATER RATES

There are two ways of computing water rates with cost recovery:

a. Computation of water rate considering capital recovery factor
b. Computation of water rate considering capital recovery factor and depreciation cost

For proponents within the Visayas Area (especially for the 20 water project sites in Bohol), water rates are computed using *b.*

A. Total cost recovery computation for water rate (considering capital recovery factor)

DATA

1.0	Total project cost	:	PhP
2.0	Capital recovery period	:	20 years
3.0	Interest on put-up capital	:	% per year (Assumed interest at inflation rate for the case of loan and for the case of grant, this is equivalent to depreciation cost reflecting an average component service life of 20 years)
4.0	Capital recovery factor (CRF)[1] :		
5.0	Operation and maintenance cost/year	:	PhP
6.0	Administrative cost/year[2]	:	PhP
7.0	Power cost/year	:	PhP
8.0	Water production/year	:	Liters (average of 75% on average demand/year)
9.0	Estimated water losses/year	:	Liters (10% on water production/year)
10.0	Net water production/year	:	Liters or M3 /year

FORMULA

$$\text{Estimated cost per } m^3 \text{ of water} = \frac{[(1.0) \times (4.0)] + (5.0) + (6.0) + (7.0)}{(10.0)}$$

Notes:

1 Considering the interest on the capital, the capital recovery period.

2 This includes the following: honoraria, supplies (office and materials), communication, transportation, allowances and training.

B. Total cost recovery computation for water rate (considering depreciation)

GENERAL

REVENUE	EXPENSES	SAVING
1.0 Membership fees	1.0 Operating	(For expansion, cost escalation)
2.0 Water bill payments	2.0 Depreciation	
3.0 Connection/reconnection fees	3.0 Inflation	
4.0 Fines/penalties	4.0 Donations	
5.0 Donations	5.0 Benefits	
6.0 Grants	6.0 Fines	

1.0 DATA

1.1 Barangay : _____

1.2 Number of households (HHs) : _____

1.3 % of number of HHs covered : _____

1.4 HH size : _____

1.5 Water consumption per person per day : _____ liters

1.6 Number of BOD members : _____

1.7 Number of technical staff : _____

2.0 WATER CONSUMPTION COMPUTATION

2.1 Number of HHs covered = Number of HHs x ___% of number of HHs covered

= _____ x _____

= _____

2.2 Number of persons = Number of HHs covered x HH average size

= _____ x _____

= _____

2.3 Daily water consumed = Number of persons x water consumption per person per day (liters)

= _____ x _____ = _____ liters/day

= _____ cu. m. /day

3.0 EXPENSES

3.1 Depreciation cost

SYSTEM COMPONENTS	COST (PhP) (Materials and Labor)	ECONOMIC LIFE (year)	DEPRECIATION COST (PhP)*	
			PER YEAR	PER MONTH
Drilled Well		20		
Pump Control House		20		
Pump		5		
Spring Intake Box		25		
Collection Tank		25		
Transmission Pipeline		40		
Water Tank		50		
Distribution Pipeline		40		
Tapstands		10		
Chlorinator		8		
T O T A L				

*Cost/economic life

3.2 Operating cost (administrative, operation, maintenance, repair and expansion)

a) Honoraria : BOD members

Number of BOD members ____ x PhP _____/member
= PhP _____/month

: Technical Staff (per month)

Manager	(No.) ____ x (Rate) _____	= PhP _____
Operator	(No.) ____ x (Rate) _____	= PhP _____
Watchman	(No.) ____ x (Rate) _____	= PhP _____
Plumber	(No.) ____ x (Rate) _____	= PhP _____
Meter Reader	(No.) ____ x (Rate) _____	= PhP _____
Collector	(No.) ____ x (Rate) _____	= PhP _____
Bookkeeper	(No.) ____ x (Rate) _____	= PhP _____
Secretary	(No.) ____ x (Rate) _____	= PhP _____
Treasurer	(No.) ____ x (Rate) _____	= PhP _____
TOTAL		= PhP _____

b) Communication : PhP _____/ month
c) Transportation : PhP _____/month
d) Allowance : PhP _____/month
e) Supplies (office) : PhP _____/month
f) Supplies (System) : PhP _____/month
g) Rentals : PhP _____/month
h) Service fees/fees : PhP _____/month
i) Electric bills : PhP _____/month
j) Representation : PhP _____/month
k) Insurance : PhP _____/month
l) Miscellaneous : PhP _____/month
TOTAL PhP _____/month

3.3 Inflation cost (cost added to the depreciation and operation costs)

Inflation cost = inflation rate of the month x (depreciation and operation costs)

= _____ x (PhP _____ + PhP _____)

= PhP _____/month

3.4 Training : PhP _____/month
3.5 Watershed management : PhP _____/month
3.6 Equipment (office) : PhP _____/month
3.7 Equipment (system) : PhP _____/month
3.8 Furniture : PhP _____/month

3.9 Benefits (maybe taken from the savings)
a) Mortuary : PhP _____/month
b) Prizes : PhP _____/month

3.10 Donations (may be taken from the savings)
Donation : PhP _____/month

SUMMARY

a) Estimated total water volume consumed or billed : _____ m^3 /month
b) Total expenses (depreciation, operation, inflation, training, watershed management, equipment, furniture, benefits, donations) : PhP _____/month

WATER RATE

Water Rate (PhP/cu m) = Total expenses (PhP)

Total volume of water billed (cu.m.)

= PhP _____

_____ cu. m.

= PhP _____ / cu.m.

A cu. m. = PhP _____
B barrel = PhP _____ (A/5)
C container #5 (20 liters) = PhP _____ (A/50)
D gallon = PhP _____ (A/260)
E liter = PhP _____

Source: *USC-WRC*

SECTION 1.7
DEED OF DONATION

(SAMPLE 1)

This is an AGREEMENT entered into between_____, of legal age and with address at _____and heretofore to be known as the DONOR.
and
_____, of legal age, and with address at _____, and heretofore to be known as the DONEE.

WHEREAS, the DONOR, agrees to donate a parcel of land to the DONEE, which land is located at Brgy.___ _____, Municipality of _____with the description as follows as specified in the LAND TITLE, etc.

(SAMPLE 2)

DEED OF DONATION

REPUBLIC OF THE PHILIPPINES
PROVINCE OF BULACAN
MUNICIPALITY OF SAN ILDEFONSO

OFFICE OF THE SANGGUNIANG BAYAN

REGULAR MEETING

_____
DATE

PRESENT:

Hon. Juan San Pedro	Vice Mayor and the *Presiding Officer*
Hon. Pedro de le Cruz	Municipal Councilor
Hon. Jose Garcia	Municipal Councilor
Hon. Pablo Santos	Municipal Councilor
Hon. Diego Silang	Municipal Councilor
Hon. Isidro Fernan	Municipal Councilor
Hon. Lito Burgos	Municipal Councilor

RESOLUTION NO _____

Approving the donation of a parcel of land, belonging to the Municipality of Burias, Province of Bulacan, to Barangay San Juan, for its use as site of the _____.

Description of lot:

_____

_____

_____

WHEREAS, the committee on Municipal Assets, headed by Councilor _____to which was referred the study of the request for donation by this municipality to Barangay San Juan, the aforementioned lot which is proposed for the site of a PUBLIC TOILET.

WHEREAS, after conducting a study of the use of the said lot, found no other need for it by the municipality now and in the near future.

RESOLVED, as it is hereby done, to approve the donation of the etc….

SECTION 1.8
SAMPLE ACCREDITATION BY LGU

BAYAN NG DOLORES
LALAWIGAN NG QUEZON

TANGGAPAN NG KALIHIM NG SANGGUNIANG BAYAN

SIPI MULA SA KATITIKAN NG IKA-13 NG KARANIWANG PULONG NG SANGGUNIANG BAYAN NG DOLORES, QUEZON NA GINANAP SA SILID PULUNGAN NOONG IKA-2 NG DISYEMBRE 2002

MGA DUMALO :

Kgg. Feliciano V. Salcedo	Tagapangulo
Kgg Mario M. Milan, Jr	Kagawad
Kgg. Romeo F. Agdan	"
Kgg. Rufino C. Coronado	"
Kgg. Romeo M. Patulot	"
Kgg. Lorino C. Mlanom	"
Kgg. Noelito V. Cabrera	'
Kgg. Allan A. Cervantes	"
Kgg. Jener A. Laloon	"
Kgg. Crisologo A. Comia	"

KAPASIYAHAN BILANG 186-2002

PAGPAPATIBAY NG AKREDITASYON NG BARANGAY BULAKIN 1 WATERWORKS SYSTEM ASSOCIATION

SAPAGKAT, ang Brgy Bulakin 1 Waterworks System Association ay naghain ng kanilang magandang layunin na maibsan ang paghihirap sa tubig ng kanilang mga kabarangay at makatulong para sa higit pang ikauunlad ng buhay ng mga magtatanim sa kanilang nasasakupan

SAPAGKAT, matapos na mapag-aralan ng kinauukulang komitiba ang kanilang isinumite na "by-laws" o mga panuntunan, ito ay napatunayang wasto at naaayon sa mga pinaiiral na batas ukol dito;

KUNG KAYA'T, sa mungkahi ni Kgg. Jener A. Laloon na pinangalawahan ng lahat;

IPINASIYA, tulad ng ngayon ay buong pagkakataong pinagpapasiyahan na pagtibayin ang akreditasyon ng Brgy. Bulakin I Waterworks System Association;

IPINASIYA PA, na mapadalhan ng sipi ng kapasiyahang ito ang mga kinauukulang Tanggapan para sa kanilang kabatiran.

LUBOS NA PINAGTIBAY, Disyembre 2, 2002

Pinatutunayan :
Ceres A. Bolwa
Kalihim ng Sangguniang Bayan

Feliciano V. Salcedo
Tagapangulo

Pinagtibay:
Rolando F. San Jose
Punong Bayan

SECTION 1.9
REQUIREMENTS IN FILING WATER PERMIT APPLICATION

	D/M	I	P	F	IN	L	R
1. Duly accomplished water permit application and notices	X	X	X	X	X	X	X
2. Local plan/vicinity maps (scale 1:10,000 or 1:50,000)	X	X	X	X	X	X	X
3. Certificate of title or tax declaration or certificate of land transfer	X	X	X	X	X	X	X
4. Articles of incorporation or partnership	X	X	X	X	X	X	X
5. Certificate of registration from SEC in case of corporation, associations	X	X	X	X	X	X	X
6. Subdivision plan	X						
7. Scheme of development		X		X			
8. Brief description of project which includes:							
a. how water will be used							
b. amount of water needed			X				
c. power expected to be generated			X	X	X	X	X
d. amount of water to be discharged to source			X	X	X	X	X
e. installation of waste treatment plan							
f. population to be served	X		X				
g. water surface area	X		X	X	X	X	X
9. Clearance from DOH, if reuse or waste water for human consumption	X						
10. Others, as deemed necessary by the Board	X	X	X	X	X	X	X

LEGEND:

D/M – DOMESTIC OR MUNICIPAL USE
I – IRRIGATION
P – POWER
IN – INDUSTRIAL
F – FISHERIES
L – LIVESTOCK
R – RECREATION

Source: *NWRB*

SECTION 1.10
REVISED NWRB FEES AND CHARGES (IN PhP)

NATURE OF SERVICE			APPROVED RATES * (IN PESOS)
A. APPLICATION/FILING FEE			
1. Water permit			
(a) Municipal			5,000
(b) Irrigation	(1)	National/corporation	5,000
	(2)	Communal/individual	500
(c) Power generation			5,000
(d) Fisheries			5,000
(e) Livestock raising	(1)	Backyard	1,000
(2) Commercial			3,000
(f) Industrial			5,000
(g) Recreational			5,000
(h) Other purposes			5,000
2. Transfer of water permit			
(a) Municipal			5,000
(b) Irrigation	(1)	Communal/individual	3,000
	(2)	National/corporation	5,000
(c) Power generation			5,000
(d) Fisheries			3,000
(e) Livestock raising	(1)	Backyard	1,000
	(2)	Commercial	3,000
(f) Industrial			5,000
(g) Recreational			5,000
(h) Other purposes			5,000
3. Registration for domestic use			100
4. Registration as well driller and renewal			(ANNUAL)
(a) Sole proprietor			1,000
(b) Partnership or corporation			2,000
5. Certificate of public convenience (CPC)/certificate of public convenience and necessity (CPCN)			3,000
6. Provisional authority			3,000
7. Extension of CPC/CPCN validity (renewal)			3,000
8. Authority to increase capital stock			2,000
9. Time extension to submit annual report of operation			1,500
10. Authority to charge water rates			2,500
11. Protests/water use conflicts			3,000
12. Appeal fee			1,000
13. Rate adjustment/increase			3,000
14. Sale/transfer/lease of water system with CPC/CPCN			2,000
15. Donation of water system with CPC/CPCN			2,000
16. Authority for extension of service			2,000
17. Reappraisal/reevaluation of assets			5,000

B. ANNUAL WATER CHARGES				
	WITHDRAWAL COST/LPS (IN PhP)			
CLASSIFICATION	BASE COST	NOT MORE THAN 10 LPS	MORE THAN 10 LPS BUT NOT EXCEEDING 50 LPS	MORE THAN 50 LPS
a) Municipal	5,000	5.50	8.50	11.00
b) Fisheries	500	2.75	4.25	5.50
c) Livestock (backyard/commercial)	500	2.75	4.25	5.50
d) Irrigation (communal/individual)	500	2.75	4.25	5.50
(national/corporation)	5,000	5.50	8.50	11.00
e) Power generation	5,000	2.75	4.25	5.50
f) Industrial	5,000	10.25	15.80	20.45
g) Recreation	5,000	10.25	15.80	20.45
h) Others	5,000	10.25	15.80	20.45
NOTE: For declared critical areas in Metro Manila, the following rates shall apply: a) In areas adequately serviced by MWSS concessionaires: 100% of water tariff of the concessionaires b) In areas not adequately serviced by MWSS concessionaires: 35% of water tariff of the concessionaires				
i) Charge for over-extraction for non-critical areas	PhP3,000 for every 1 lps or fraction thereof over extracted			
j) Other charges				
(j-1) Use of water at its natural location for fish culture				
(j-1-a) For surface area < 15 has.	Base cost of PhP500 + PhP110/ha.			
(j-1-b) For surface area > 15 has.	Base cost of PhP500 + PhP1,650 for 15 has. plus PhP0.65/ha. in excess of 15 has.			
k) Waterworks supervision				
(k-1) Supervising/regulation fee	PhP0.50 per PhP100 capital stock subscribed or paid or if no shares have been issued, of the capital invested, or of the property and equipment, whichever is higher.			

C. OTHER CHARGES	APPROVED RATES (IN PhP)
1. Annual report form	200
2. Certification charge	
a) Certification for memorial parks	3,500
b) Certificate of water availability	1,500
c) Other technical certification	1,000
d) Certified photocopy	50
3. CPC/CPCN certificate	500
4. Certificate of compliance	3,500
5. Testing and sealing fee of water meters	50

D. PENALTIES	
1. Owner	
(a) Operation of a system without a CPC/CPCN	PhP5,000 per year reckoned from date of operation or five years whichever comes first but not to exceed PhP25,000
(b) Non-payment of annual water charge	50% of due per year or fraction thereof plus additional interest for delinquency under Sec. 84 of Amended IRR
(c) Non-submission of annual report form	PhP2,500 per year + PhP25/day of delay but not to exceed PhP5,000
(d) Refusal to have meters tested and sealed	Additional 20% of approved testing and sealing fee for water meter times total active connection per year
(e) Illegal extraction of groundwater	More than PhP800 but not exceeding PhP1,000 per day of violation
2. Well drillers	
(a) Drilling without permit to drill	PhP20,000 (lst offense) PhP30,000 (2nd offense) Revocation of registration (3rd offense)
(b) Non-registered well drillers	PhP50,000
E. Penalty for Delinquency (Sec. 84 of the Amended IRR)	
Where the penalty imposed is a fine, additional penalty interest equivalent to 2% per month of delay or a fraction thereof until fully paid shall be charged.	

* *Approved during the 29th meeting of the Board held March 21, 2005, per Board Resolution No. 010-0305.*

SECTION 1.11
APPLICATION FOR CERTIFICATE OF PUBLIC CONVENIENCE

Republic of the Philippines **NATIONAL WATER RESOURCES BOARD** 8th Floor, NIA Building, EDSA, Quezon City Telefax: 920-27-14	CERTIFICATE OF PUBLIC CONVENIENCE FOR WATER SUPPLY APPLICATION CASE NO.

PLEASE ACCOMPLISH THIS FORM IN SIX (6) COPIES

NAME OF APPLICANT	MAILING ADDRESS CONTACT NO.	WATER PERMIT NO. SOURCE LOCATION
CITIZENSHIP	TIN	DATE OF OPERATION

SERVICE AREA Subdivision: Barangay: Municipality: ☐ ☐	Existing CPC/N No., if for renewal Provisional Athority Required Yes No	FILING FEE a. Amount _____ b. O.R. No._____ c. Date_____

TYPE OF UTILITY [ ] Subdivision/HOA [ ] Rural Water & Sanitation Association [ ] Cooperative [ ] Bulk Water Seller/Peddler [ ] Others_____ *(Specify)*	NO. OF CONNECTIONS a. With water meters_____ b. W/o water meters_____ c. Meter tested_____ c.1 tested by_____ c.2 date tested _____ d. For bulk seller/peddler Average volume of water delivered in cubic meters per day _____

KIND OF WATER SYSTEM
[ ] Draw & Fill [ ] Float [ ] Direct Pumping

LIST OF DOCUMENTARY REQUIREMENTS

( ) Articles of Incorporation/ Partnership/ DTI Registration
( ) Board resolution (for corporations and partnerships) special power of attorney (for single proprietorships) authorizing the signatory to sign and file the application
( ) Copy of Approved Water Permit/s
( ) Copy of Official Receipt/s of Annual Water Charges
( ) Copy of Latest Certificate of Potability issued by City/Municipal Health Officer where source is located with Results of Bacteriological, Physical & Chemical Impunities conducted by laboratory of DOH
( ) Plan of Water Distibution System
( ) Plan, Elevation of Cross-sectional Views of Tank/Reservoir
( ) Plan, Elevation of Cross-sectional Views of Pump House, Machinery & Equipment

( ) Latest Audited Financial Statement
( ) Actual Balance Sheet for Water Operation[1]
( ) Actual Income Statement for Water Operations[2]
( ) List of Existing Assets in Service Subject to Return
Itemized Projected Financial Statements for Water
Operations for 5 years
( ) Income Statements
( ) Funds Flow
( ) Balance Sheet
( ) Assumptions
( ) Business Plan & Itemized List of Required Investments for the Next 5 yrs.
( ) Proposed Tariff Schedule
( ) Levels of service agreed with commensurate with proposed rates
( ) Others

1 For new CPC applicants last 2years
For old applicants last 2 years
2 applicant has another operations other than water supply.

I HEREBY CERTIFY THAT THE INFORMATION GIVEN ABOVE AND THE DOCUMENTS SUBMITTED ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. _____ Signature of Water Utility Representative	SUBSCRIBED AND SWORN TO BEFORE ME ON THIS DATE _____ Notary Public / Administering Officer

SECTION 1.12
SAMPLE PERMIT TO DRILL

PERMIT TO DRILL
PTD No. 2006-082

SAN PEDRO MEMORIAL PARK (LAG.) INC.
15 Crismor Ave., Elvinda Village,
San Pedro, Laguna

Sir:

In accordance with Sections 10 and 42 of the Implementing Rules and Regulations, you are hereby authorized to drill a TEST WELL at San Antonio, San Pedro, Laguna with latitude 14° 22' 00" and longitude 121° 02' 41" as indicated in your Water Permit Application No. 44073. Provided that the DRILLER is duly REGISTERED with the Board and submission to this Office of the following data and information duly CERTIFIED by the Well Driller or its authorized representative:

1. Well geologic log, pumping test data and results entered in Enclosed NWRB Form Nos. 2902 and 2903;
2. Plans and specification of the well structures (casing diameter screen or perforated pipe setting, pump size (HP) and other relevant technical data);
3. Results of bacteriological, chemical water quality test; and
4. Certificate of Registration of the Well Driller issued by NWRB.

This permit shall remain valid for a period of SIX (6) months from the date of issue hereof and failure to submit the above-mentioned data and information within said period shall constrain this Office to return your application for lack of interest on your part.

Issued this 26th day of June 2006.

BY AUTHORITY OF THE BOARD:

(Signed) RAMON B. ALIKPALA
Executive Director

SECTION 1.13
SAMPLE CERTIFICATE OF POTABILITY

REPUBLIC OF THE PHILIPPINES
CITY/MUNICIPALITY OF _____
OFFICE OF THE CITY/MUNICIPAL HEALTH OFFICER

CERTIFICATE OF POTABILITY

This is to certify that the results of water samples collected from _____ *(Sampling point)* at _____ *(Address of Sampling Point)* on _____ *(Date of Collection)* showed that the water supply has passed the requirements set by the Philippine National Standard for Drinking Water for physical and chemical (aesthetic, organic, inorganic, disinfectant and disinfectant byproducts), biological, bacteriological and radiological quality.

Based on these results, the _____Drinking Water Quality Monitoring Committee (DWQMC) hereby recommends the issuance of this certificate to _____ *(Name of Applicant)* _____ of _____ *(Address of Applicant)*.

By Authority of the Secretary of Health:

_____
City/Municipal Health Officer

Not Valid without
LHO Official Seal

Certificate No: _____
Date Issued: _____
O. R. No.: _____
Date Issued: _____

Notes:

1. *This certificate must be revalidated after every examination based on the standard interval of frequency of sampling.*
2. *Copy of results of laboratory examination are to be submitted to the local health office for information and reference.*
3. *Examination of drinking water must be conducted by a Department of Health-accredited water laboratory.*

SECTION 1.14
SAMPLE CERTIFICATE OF WATER QUALITY

RESULTS OF WATER ANALYSIS

FACILITY LEVEL: _____

PROVINCE	:	
MUNICIPALITY	:	
BARANGAY	:	
HOUSEHOLD NAME	:	
SITE	:	

This is to certify that water supply facility classified under the level and location aforedescribed, has been examined by the Department of Health Laboratory and has passed its minimum requirements, as attested to by the result of Laboratory analysis, in terms of:

____ Bacteriological impurities
- Escherichea (E. coli)
- Total coliform

____ Physical and chemical impurities

-Taste
-Odor
-Ph
-Turbidity
-Chloride
-Total dissolved solids
-Nitrate
-Total hardness
-Iron
-Sodium
-Sulfate

Other parameters (please specify) _____

This certificate of potability is valid until: _____

Thereafter subsequent samplings and analysis will be covered by a corresponding certification.

Recommended for approval:

_____
Sanitary Inspector

_____
Rural Health Officer

SECTION 1.15
SAMPLE PROGRAM OF WORK

Office of the Project Management Committee
Barangay Cabangahan
Municipality of San Miguel
Province of Bohol, Region VII
SUB-PROJECT PROGRAM OF WORK

Project Title:	Installation of Cabangahan Level II Waterworks System		
Category:	New installation		
Physical target:	One (1) Level II Waterworks System (140 HH)		
Project Description: Dug Well Development, Construction of Elevated Reservoir, Installation of Submersible Pump w/ Accessories, Energization of Production Well, Construction of Pump/ Control House, Piping Works (Transmission and Distribution Lines), Trenching, Installation of Pipe Drains, Air Vents Thrust Blocks and Pipe Supports and Construction of Metered Faucet Stand.	Subproject duration	90 working days	
	Equipment/tools Needed	1 bagger mixer, concrete vibrator, bar cutter, carpentry and masonry, electrical and plumbing tools	
	Technical personnel	Engineer, Foreman, Carpenter, Mason, Plumber, Steelman and Electrician	
	Number of laborers	720 person days	

Item No.	Scope of Work	%(Wt)	Quantity	Unit	Unit Cost (PhP)	Total (PhP)
I.	Dug well development	0.21	1.00	unit	3,559.50	3,559.50
II.	Construction of elevated reservoir (21 cu.m. capacity)	28.34	1.00	unit	476,331.70	476,331.70
III.	Installation of submersible pump w/complete accessories (1Hp)	6.37	1.00	unit	107,050.00	107,050.00
IV.	Energization of production well	3.37	1.00	lot	56,668.40	56,668.40
V.	Construction of pump/ control house (1.2m x 1.2m)	2.63	1.00	unit	44,243.85	44,243.85
VI.	Piping works (transmission and ditribution lines)	47.18	4379.00	l.m.	181.10	793,043.50
VII.	Trenching	3.11	1.00	lot	52,200.00	52,200.00
VIII.	Installation of pipe drains, air vents, thrust blocks and pipe supports.	1.74	1.00	unit	29,328.50	29,328.50
IX.	Construction of metered faucet stand	7.04	15.00	l.m.	7,891.88	118,378.13
Total Direct Cost		100.00				**1,680,803.58**

Breakdown of estimated project cost		Source of fund				Total cost
		PEF Grant	Community	Municipal	Barangay	
A.	Direct cost					
	Materials	1,172,003.58	-	100,000.00		1,272,003.58
	Equipment					0.00
	Labor					
	Skilled	184,400.00				184,400.00
	Unskilled		224,400.00			224,400.00
	Sub-Total A	1,356,403.58	224,400.00	100,000.00	-	1,680,803.58
B.	Indirect cost					
	Pre-engineering	-	4,800.00	-	2,000.00	6,800.00
	POW preparation	Chargeable against TAF				
	TA in project implementation	-	-	12,480.00	-	12,480.00
	Project supervision and community organizing	60,000.00	22,500.00	-	8,000.00	90,500.00
	Land acquisition (barangay)	-	-	-	10,000.00	10,000.00
	Project billboard	-	-	-	2,500.00	2,500.00
	Materials testing	4,000.00	-	-	-	4,000.00
	Adm/operating cost	27,000.00	-	-	15,000.00	42,000.00
	Handtools	20,000.00	-	-	5,000.00	25,000.00
	Sub-Total B	111,000.00	27,300.00	12,480.00	42,500.00	193,280.00
	Total (A+B)	1,467,403.58	251,700.00	112,480.00	42,500.00	1,874,083.58
	Add : Contingency	67,820.18				67,820.18
	GRAND TOTAL	1,535,223.75	251,700.00	112,480.00	42,500.00	1,941,903.75
	Total Local Counterpart Contribution		406,680.00			20.94%
Breakdown		In cash		100,000.00	20,000.00	120,000.00
		In kind	251,700.00	12,480.00	22,500.00	286,680.00

Prepared by

_____

SECTION 1.16
SAMPLE SCHEDULE OF WORK

PROJECT LOCATION : BARANGAY BUENAVISTA, PINTUYAN, S. LEYTE
PROJECT NAME : BUENAVISTA PIPED-WATER SYSTEM
PROJECT COST : PhP 1,913,979.31
PROJECT DURATION : 102 WORKING DAYS

ITEM NO.	ACTIVITIES	MONTHS																								NO. OF DAYS
		1				2				3				4				5				6				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
A	Mobilization																									
1	Spring intake cox constuction																									12
2	Collection tank construction																									6
3	Transmission pipe installation																									30
4	Water tank construction																									10
5	Dist. Pipeline installation																									4
6	Service pipeline installation																									36
7	Tapstand construction																									18
8	Valve box construction																									12
9	Pipe support construction																									3
10	Pump installation and pump accessories																									18
11	Powerhouse construction																									18
12	H_2o source perimeter Fencing																									18
13	Electrical post construction																									3
14	Power line installation																									
15	System test run, correctional works, flushing and disinfection																									6
B	Demobilization																									6

SECTION 1.17
SAMPLE BILL OF MATERIALS

SUMMARY OF BILL OF QUANTITIES / MATERIALS AND LABOR COST

-				PROPOSED (PhP)	
Pipes, fittings and accessories				PhP	3,163,289.34
Power supply system and submersible pump					492,860.00
Reservoir					133,760.00
Intake box					88,650.00
Community faucets (tapstands)					109,600.00
Powerhouse for generator					3,431.00
Fencing					5,420.00
Miscellaneous tools					15,000.00
Sub-total (material cost + tools)				PhP	4,012,010.34

Skilled labor cost				PhP	73,000.00
Unskilled labor cost					599,551.55
Sub-Total (labor cost)				PhP	672,551.55

GRAND TOTAL				PhP	4,684,561.89

DETAILED LIST OF BILL OF QUANTITIES / MATERIALS

PIPES, FITTINGS AND ACCESSORIES

				PROPOSED	
ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE (PhP)	AMOUNT (PhP)
1	750	lm	HDPE pipe 63mm ISO SDR 17	141.86	106,395.00
2	6150	lm	HDPE pipe 110mm ISO SDR 17	430.50	2,647,575.00
3	3000	lm	HDPE pipe 20mm ISO SDR 11	21.32	63,960.00
4	15	pcs	Stub end 4"	2,833.95	42,509.25
5	15	pcs	GI nipple w/ welded flange ring 4" x 6"	2,986.70	44,800.50
6	15	pcs	Flange ring 4"	2,146.70	32,200.50
7	4	pcs	Plastic male adaptor 2"	733.90	2,935.60
8	10	pcs	GI end plug 4"	406.25	4,062.50
9	1	pc	Plastic connector 2"	1,188.18	1,188.18
10	1	pc	Fabricated reducer SDR 17 4" x 2" x 4"	2,929.40	2,929.40
11	80	pcs	Plastic saddle clamp 4" x ½	880.70	70,456.00
12	160	pcs	Plastic male adaptor ½"	62.50	10,000.00
13	3	pcs	Plastic air release valve 1"	8,015.50	24,046.50
14	3	pcs	Plastic saddle clamp 4" x 1"	880.70	2,642.10

				PROPOSED	
ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	AMOUNT
15	1	pc	GI nipple 4 x 2m	3,860.25	3,860.25
16	1	pc	GI nipple 4" x 6"	735.20	735.20
17	2	pcs	GI elbow 4" x 45deg	937.50	1,875.00
18	2	pcs	GI nipple 4" x 12"	1,010.40	2,020.80
19	10	pcs	GI coupling 4"	383.40	3,834.00
20	2	pcs	Nipple 2" x 18"	220.05	440.10
21	3	pcs	GI elbow 2" x 90deg	220.05	660.15
22	2	pcs	GI elbow 3" x 90deg	275.00	550.00
23	2	pcs	GI nipple 3" x 12"	508.40	1,016.80
24	2	pcs	Ball valve 2" (japan)	5,000.00	10,000.00
25	1	pc	Elbow 2" x 45deg	181.25	181.25
26	1	pc	Check valve 2" spring type	4,781.25	4,781.25
27	1	pc	GI tee 2"	322.95	322.95
28	5	pcs	GI nipple 2" x 4"	80.00	400.00
29	2	pcs	GI nipple 2" x 12"	225.80	451.60
30	1	pc	GI nipple 2" x 184"	2,873.70	2,873.70
31	80	pcs	GI nipple ½ x 30"	111.00	8,880.00
32	160	pcs	GI elbow ½ x 90deg	38.30	6,128.00
33	80	pcs	GI nipple 1/2" x 3"	15.35	1,228.00
34	80	pcs	GI coupling ½'	9.60	768.00
35	80	pcs	Faucet plain bibb ½"	150.00	12,000.00
36	80	pcs	Teflon tape ½"	13.31	1,064.80
37	3	mts	Storm drain pipe 24" HD	3,141.97	9,425.91
38	1	pc	GI nipple 4" x 18"	1,265.65	1,265.65
39	1	pc	GI elbow 4' x 90deg	510.50	510.50
40	1	pc	GI nipple 4" x 20"	1,350.70	1,350.70
41	5	pcs	GI nipple 4" x 18"	1,265.65	6,328.25
42	1	pc	Level switch 2"	6,041.70	6,041.70
43	1	pc	Check valve 2" swing type	1,156.25	1,156.25
44	1	pc	Gate valve 2"	1,061.90	1,061.90
45	3	pcs	Fabricated wye 4"	1,968.75	5,906.25
46	2	pcs	Fabricated elbow 4" x 45deg	1,312.50	2,625.00
47	3	pcs	Fabricated tee 4" x 4" x 4"	1,968.75	5,906.25
48	1	pc	Fabricated elbow 4" x 90deg	1,312.50	1,312.50
49	3	pcs	GI Nipple 1" x 12"	167.00	501.00
50	3	pcs	GI coupling 1"	41.70	125.10
PIPES, FITTINGS & ACCESSORIES					
				Sub-Total	3,163,289.34

POWER SUPPLY SYSTEM AND SUBMERSIBLE PUMP

ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE (PhP)	AMOUNT (PhP)
51	1	set	Gouldspump submersible 5HP single phase (33GS50)	150,000.00	150,000.00
52	Power supply system				
	1	unit	Transformer, 10 KVA, 240V I/O		
	1	unit	Voltage regulator		
	1	unit	60AT/100AF, 2P, 60Hz, MCCB		
	5	sets	A1 poles, 8.0 m x 160kg		
	1400	mts	14mm^2 THW/USE/SE type wire		
	5	pcs	Pin insulator		
	5	pcs	20" pole top pin		
	10	pcs	5/8" x 8" machine Bolts with 3 washers		
	10	pcs	Armor rod (single support)		
	10	pcs	5/8" locknut		
	5	pcs	5/8" x 8" single upset bolt		
	5	sets	13/4" groove spool insulator		
	1	lot	Misc. consumables		
	1	set	Generator diesel engine 10 KVA Japan	342,860.00	342,860.00

POWER SUPPLY SYSTEM AND SUBMERSIBLE PUMP	Sub-Total	492,860.00

LABOR COST

Skilled labor: 1 foreman @ PhP350/day x 40 days =				PhP	14,000.00
5 mason @ PhP250/day x 40 days =					50,000.00
3 carpenters @ PhP300/day x 10 days =					9,000.00
			Sub-Total	PhP	73,000.00

Unskilled labor : 15% of total material cost =				PhP	599,551.55
			TOTAL LABOR COST	PhP	672,551.55

INTAKE BOX

ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE (PhP)	AMOUNT (PhP)
65	100	bags	Portland cement	169.00	16,900.00
66	42	cu.m	Gravel and sand	750.00	31,500.00
67	150	pcs	16mm round bar RSB	130.00	19,500.00
68	75	pcs	12mm round bar RSB	98.00	7,350.00
69	100	kls	Tie wire	55.00	5,500.00
70	16	pcs	plywood	275.00	4,400.00
71	1	lot	Assorted lumber materials	3,000.00	3,000.00
72	1	lot	Assorted CW nails	500.00	500.00

INTAKE BOX	Sub-Total	88,650.00

COMMUNITY FAUCETS

1 TAPSTAND ESTIMATE

ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE (PhP)	AMOUNT (PhP)
73	4	bags	Portland cement	169.00	676.00
74	3	pcs	12mm round bar RSB	98.00	294.00
75	10	bags	Sand and gravel	25.00	250.00
76	1	lot	Lumber framing	150.00	150.00
					1,370.00 X 80 tapstand
COMMUNITY FAUCETS				Sub-Total	109,600.00

POWERHOUSE FOR GENERATOR

ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE (PhP)	AMOUNT (PhP)
77	100	pcs	Concrete hollow block 4" class A	8.00	800.00
78	6	bags	Portland cement	169.00	1,014.00
79	1.5	cu.ft	sand and gravel	750.00	1,125.00
80	6	pcs	10 mm round bar RSB	82.00	492.00

POWERHOUSE FOR GENERATOR	Sub-Total	88,650.00

FENCING

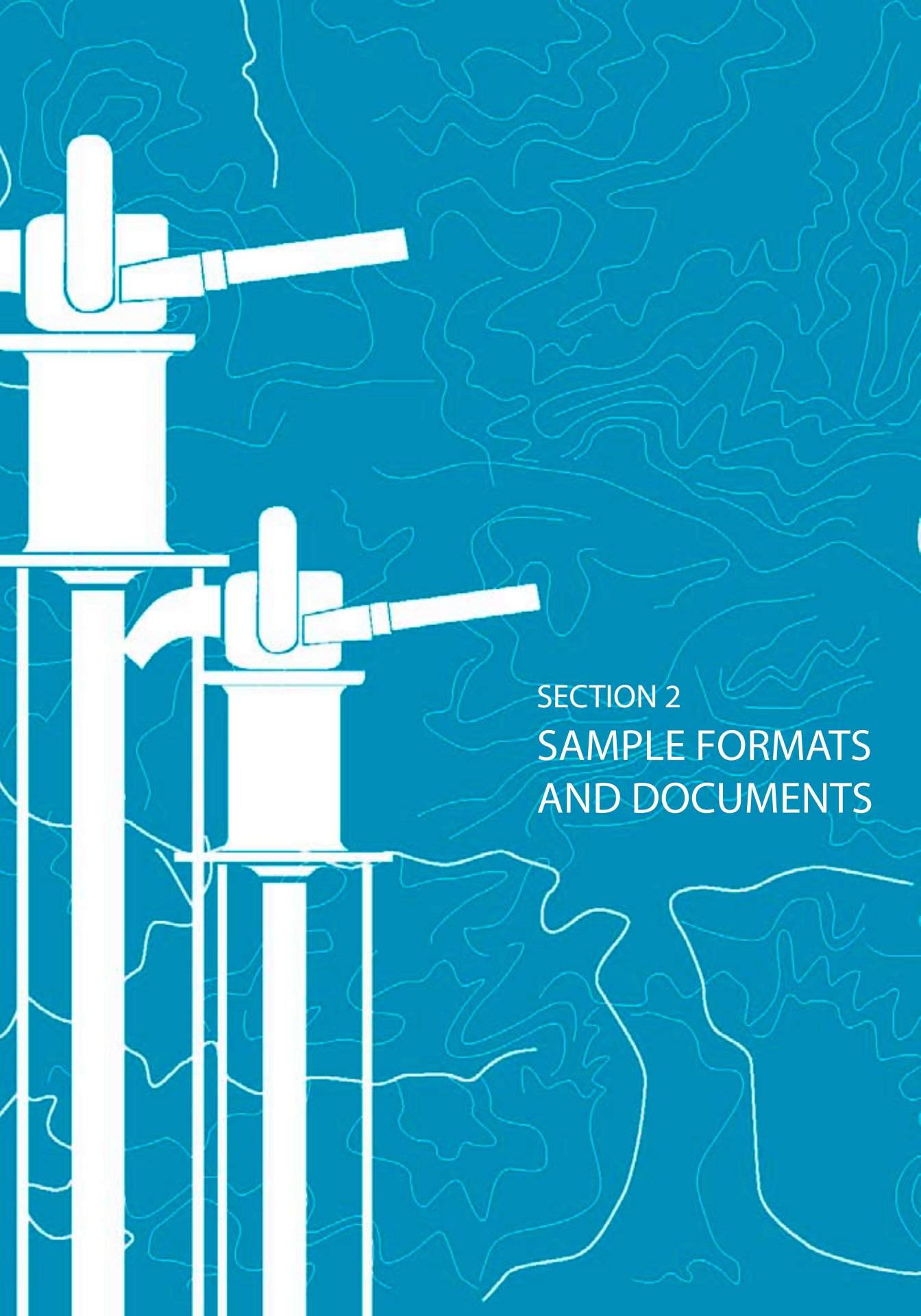
ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE (PhP)	AMOUNT (PhP)
81	6	pcs	4 x 4 x 6 lumber	120.00	720.00
82	50	pcs	2 x 2 x 12 lumber	60.00	3,000.00
83	1	lot	Assorted CW nails	700.00	700.00
84	1	lot	Bamboo strips	1,000.00	1,000.00
FENCING MATERIALS				Sub-Total	5,420.00

MISCELLANEOUS TOOLS

ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE (PhP)	AMOUNT (PhP)
85	1	lot	Assorted plumbing tools	15,000.00	15,000.00
MISCELLANEOUS TOOLS				Sub-Total	15,000.00

RESERVOIR

ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE (PhP)	AMOUNT (PhP)
53	150	bags	Gravel and sand	169.00	25,350.00
54	55	cu.m	16 mm round bar RSB	750.00	41,250.00
55	230	pcs	Tie wire	130.00	29,900.00
56	150	kls	Shara cement	55.00	8,250.00
57	50	bags	Plywood	58.00	2,900.00
58	24	pcs	Lumber 2 x 3 x 14	275.00	6,600.00
59	40	pcs	Lumber 2 x 2 x 14	105.00	4,200.00
60	40	pcs	4' nails	70.00	2,800.00
61	5	kgs	3" nails	55.00	275.00
62	5	kgs	2" nails	50.00	250.00
63	5	kgs	2" nails	45.00	225.00
64	120	pcs	12 mm round bar RSB	98.00	11,760.00
RESERVOIR				Sub-Total	133,760.00



SECTION 2

SAMPLE FORMATS AND DOCUMENTS

SECTION 2.1
POVERTY MAPPING
SOURCE: *PEF Manual of Program Operations, 2004*

POVERTY MAPPING AS A TOOL AND A PROCESS.

- A poverty map is a compilation of key poverty indicators in a given province, culled from official secondary data and the results of consultation with partners. The poverty map thus captures the poverty situation in a region or province and can serve as basis for the formulation and focusing of interventions by the foundation. The poverty map is developed by the Foundation in collaboration with concerned stakeholders.
- The poverty map includes a Resource and Program Intervention Mapping of social development institutions or organizations working in the province; their programs and projects, physical infrastructure particularly focusing on health, education, housing and livelihood needs; and funding being allocated. Current and actual resources shall be included in the mapping to identify what capacities and resources need to be enhanced, monitored or even re-oriented or directed to reach agreed upon poverty reduction plans and targets.
- Thus, the Poverty Map is not just a Poverty Status Map but is also a Development Road Map. It is not static but dynamic. It is a working visual representation that will evolve over time — as the Foundation refines its tools for data gathering, and engages the multiple stakeholders in setting and evaluating goals, targets, projects for poverty reduction and empowerment.
- Through the Poverty Map, the Foundation aims to bring valuable information on poverty and development needs to the fore and make it available to local stakeholders.

TWO LEVELS OF POVERTY MAPPING

Poverty mapping is undertaken at two levels: national and provincial.

- The first level of Poverty Mapping was conducted in 2002 for all 79 provinces of the Philippines. Indicators were obtained from available studies showing Quality of Life Index, Human Poverty Index, Poverty Incidence and Magnitude and the Annual Poverty Indicators Survey. The scanning resulted in the identification of 28 priority provinces and the National Capital Region as priority areas. In 2005, the newly-created province of Zamboanga Sibuguey was added to the list, bringing the total number of priority provinces to 29 (See Section C.1.1).
- The second level of Poverty Mapping is at the provincial level and shall be conducted by the Foundation for the 29 priority provinces and other identified priority areas.

OBJECTIVES OF PROVINCIAL POVERTY MAPPING

Poverty mapping has two main objectives.

- First, the provincial poverty maps serve as the basis for the development of the Foundation's specific programs and priorities for each province. By surfacing province-specific poverty data, the poverty map serves to sharpen the geographic as well as thematic focus of the Foundation.
- At the same time, the poverty mapping exercise also ideally serves as the first step in the establishment of Partnership and Access Centers (PACs). The poverty mapping process and output shall influence the shaping of the partnership mechanism between the

Foundation and the provincial PAC (See Section C.4). The Foundation starts the process by holding a multi-stakeholders forum in a particular province to present the poverty mapping activity and invite interested CSO networks/organizations to assist in the activity. A selected qualified CSO that participates in the poverty mapping shall ideally be designated later as PAC for the province.

THE POVERTY MAPPING PROCESS

The process begins with the selection of a province by the Foundation. Regional offices may recommend and endorse a poverty mapping activity in a particular province and include this in their annual plans for approval by the Board or Program committee. Once a poverty mapping activity has been approved, the following steps are undertaken.

- *Multi-stakeholders forum.* The Foundation conducts a multi stakeholders forum in the selected province/s to discuss the poverty mapping process to be undertaken. Stakeholders, including CSOs and CSO networks, shall be invited to the activity. This also serves as the venue for initially identifying a qualified CSO network that can assist in conducting the poverty mapping and can later be designated as a PAC.
- *Conducting poverty mapping.* The Foundation then takes the lead in conducting the poverty mapping exercise with the assistance of the selected local partner. This involves the following:
    - Visual Mapping of the Local Poverty Situation, disaggregated at the municipal levels for provinces; and barangay levels for highly urbanized cities. Herein, the Foundation uses a set of 10 to 12 indicators, clustered into the categories of Health, Education and Livelihood.
    - Stakeholder Validation and Consultation Workshops are convened to do provincial scoping and prioritizing in terms of geographical areas (that is, municipalities and barangays, or clusters of these), basic sectors (such as indigenous peoples, youth, etc) and "stakeholder-ship", defined as the level of participation of the sector in the workshops and commitment to continuing involvement in the partnership process.
    - This involves Local Poverty Reduction Planning. Part of the Mapping and Analysis is doing a situation analysis of interrelated problems. For instance, one province correlated the so-called "proxy" income indicator of houses with strong roofing materials with elementary or high school participation rate. These are positively reinforcing indicators. The most important part of the stakeholder analysis is prioritizing development assistance with available local or regional resources.
- *Validating the poverty map.* Once completed, the poverty map is presented and validated in a validation forum/workshop participated in by local stakeholders, including local CSOs, local government units and line agencies. The validation process consists of two main activities:

- *Validation*. Participating stakeholders are clustered into geographical areas or zones, and groupings analyze and diagnose the poverty situation in their localities and validate/evaluate the data and their implications.
- *Re-visit*. Stakeholders then re-visit past poverty reduction programs and recommend intervention strategies, including potential programs, projects and resources.

- *Poverty mapping outcomes*. The validated poverty maps then provide the starting point for the Foundation in planning the specific poverty reduction programs and interventions in the province. Equally important, the poverty mapping shall have resulted in determining the partnership mechanism at the provincial level.

POVERTY MAPPING DATA

Official sources of secondary data shall be used to compile information for the poverty map. These include data from the National Statistics Office, line agencies at the provincial and municipal level, the Provincial and Municipal Planning Offices, and the local Health, Education, Labor and Employment, Agriculture and Agrarian Reform Offices, among others. In a few provinces or municipalities, there may be updates on the Minimum Basic Needs (MBN) Survey that can be used. (In many provinces and municipalities, however, MBN data may be not available or open to comparative analysis as they are not done by all municipalities in a province.)

POVERTY MAPPING IN CITIES

In some cases, provinces like Zamboanga del Sur contain highly populated urban areas or chartered cities whose poverty conditions are by themselves unique and therefore deserve a more focused assessment. Thus, poverty mapping is also undertaken in selected cities.

NON-PRIORITY AREAS

In some instances, the Foundation may also provide development assistance in other non-priority areas in the province or areas not identified as priority areas in the provincial poverty map.

SECTION 2.2
SAMPLE MOAs AND RESOLUTIONS FOR PARTNERSHIP

BETWEEN CONDUIT ORGANIZATION AND PEF

DOLORES DEVELOPMENT COOPERATIVE

RESOLUTION NO. 76-2003
REQUESTING PEACE AND EQUITY FOUNDATION (PEF) FOR FUNDING ASSISTANCE TO BE USED IN THE DEVELOPMENT OF WATER SYSTEM OF BARANGAY BULAKIN 1, DOLORES, QUEZON

WHEREAS, One of the factors that hinders development in Barangay Bulakin 1 Dolores, Quezon is the barangay's poor water system as its insufficiency interrupts agricultural and related activities;

WHEREAS, Peace and Equity Foundation, an independent non-profit organization is known to support poor communities by providing, financial and technical assistance in accordance to the community's felt-needs;

WHEREAS, It is the policy of the PEF that project proponents must be NGOs or cooperatives in existence and operational at least two years prior to its application for funding assistance and has the capability to manage and implement the proposed project as proven by its track record;

WHEREAS, Barangay Bulakin 1 is within the area of operation of Dolores Development Cooperative;

WHEREAS, Majority of Bulakin 1 – KALAHI Program Volunteers are members of good standing of Dolores Development Cooperative; Now therefore upon motion of the Vice Chairman unanimously seconded, BE IT RESOLVED as it is hereby RESOLVED to request Peace and Equity Foundation to provide financial assistance for the development of water system of Barangay Bulakin 1, Dolores, Quezon (with the Dolores Development Cooperative as conduit) thereby improving the agricultural activities in the area and in the process improving the quality of life of the people in the said community.

RESOLVED Further to assign the following officers/personnel as the authorized representatives of the cooperative to the funding institution whose duties will include among others signing all documents pertaining to the project:

MELCHOR ALILIO	BOD Chairman
ELEANOR M. BULAHAN	BOD Vice Chairperson
MICHAEL S. CAUYAN	DDC General Manager

RESOLVED Furthermore to inform PEF that Dolores Development Cooperatives will honor signatures of at least two of the above-mentioned signatories to any transactions made by them for and in behalf of the cooperative in relation to the aforementioned project.

RESOLVED FINALLY to furnish Peace and Equity Foundation excerpts of this resolution for their information and expected favorable actions.

APPROVED UNANIMOUSLY

I hereby certify to the correctness of the foregoing excerpts from the minutes of the 4th meeting of the 39th BOD held at the cooperative office on April 27, 2003.

(Signed)
ANNIWENDA P. REYES
Secretary

ATTESTED

(Signed)
MELCHOR A. ALILIO
Chairman

SAMPLE MOA

BETWEEN COMMUNITY AND LGU

MEMORANDUM OF AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

This agreement made and entered into this 19th day of April 2004, by and between:

BARANGAY SAN ISIDRO, a local government unit with office address at Balanti, Cainta, Rizal, represented herein by its Barangay Captain, RODOLFO M. DE JESUS, and hereinafter referred to as the "BARANGAY";

And

CAINTA HOMEOWNERS WATER SERVICE & MULTI-PURPOSE COOPERATIVE (formerly known as Brookside Water Service Cooperative), a duly registered cooperative, organized and existing under and by virtue of the laws of the Philippines, represented herein by its Chairman, ABDULHALIM I. ABDULMAJID, with office address at 1475 Benson St., Brookside Hills Subdivision, Cainta, Rizal and hereinafter referred to as the "COOPERATIVE"

WITNESSETH:

WHEREAS, the COOPERATIVE has requested funding support from the Representative of the first district of Rizal for the completion of its water project located in Brgy. San Isidro, Cainta, Rizal, so as to meet the basic need for water of the "waterless" residents in the area;

WHEREAS, the Representative of the First District of Rizal has favorably responded to COOPERATIVE's request for financial assistance, tapping the DPWH-Rizal 1st Engineering District as the fund conduit and project implementor;

WHEREAS, the water project has been recently completed through the DPWH-Rizal 1st Engineering District and turned over to the BARANGAY for use of the intended beneficiaries/end users;

WHEREAS, the COOPERATIVE as the requesting party has donated portion of its property to the government for use of the project on the condition that, once completed, it will be given the right to manage and operate the project.

WHEREAS, it is the declared policy of the State to give priority to cooperatives in the use and management of its resources.

NOW THEREFORE, For and in consideration of the foregoing premises, the parties hereby jointly agree as follows:

1. The BARANGAY through the Brgy. Capt. As authorized by the Barangay Council shall upon signing of this Agreement automatically vests the management, operation and maintenance of the project's government funded water facilities to the COOPERATIVE, but shall retain ownership thereof;

2. The COOPERATIVE shall operate, manage, maintain and administer the said water facilities during its useful economic life; and shall solely responsible for shouldering the cost of repairs and maintenance of the said facilities;
3. The COOPERATIVE shall use the said water facilities to provide water service to the "waterless" residents of the area;
4. To ensure project sustainability, the COOPERATIVE shall be entitled to charge a fee for its water service, which shall at least be sufficient to defray the cost of operation, maintenance, depreciation, administration, and other incidental expenses;
5. The COOPERATIVE shall in no way sell, lease, mortgage, or in any manner convey the abovementioned government-funded water facilities; and any violation to this effect shall give the latter the right to intervene and to institute appropriate corrective measures;
6. The COOPERATIVE shall be responsible for the preparation of the water system project's annual financial statements, a copy of which shall be furnished to the BARANGAY;
7. The COOPERATIVE shall allocate five percent (5%) of the water system project's net income as contribution to the social fund of the Brgy. Captain;

IN WITNESS WHEREOF, the parties hereunto affixed their signature this 20th day of April 2004.

BRGY. SAN ISIDRO	CAINTA HOMEOWNERS WATER SERVICE & MULTIPURPOSE COOPERATIVE
(Signed) RODOLFO M. DE JESUS Brgy. Captain	(Signed) ABDULHALIM I. ABDULMAJID Chairman

SAMPLE MOA

BETWEEN PROJECT PARTNERS

MUTUAL STAKEHOLDERS' AGREEMENT

This agreement was made and entered into this day January 16, 2004 among and between:

The Barangay Sub-Project Management Team Represented by its Chairman	:	MOISES R. VILLARAZA
Barangay Council Represented by its		
Barangay Captain	:	BRGY. CAPT. DANILO CAPILANGO
Municipal LGU Represented by	:	MAYOR ROLANDO SAN JOSE
Local Health Board Represented by	:	DR. CECILE CHAVEZ

WHEREAS, Bulakin 1 Upgrading of Level II Water System as PEF-KALAHI-CIDSS: KKB sub-project in Dolores, Quezon has been identified by the community as a major strategy to combat increasing number water-borne diseases of children, to provide potable water supply to the residents and provide opportunities for the residents to engage in agribased employment livelihood activities esp. backyard swine raising and vegetables farming among others, thereby increasing income and to improved health situation of the community people of Bulakin 1, Dolores, Quezon;

WHEREAS, said project is now nearing completion, and as such detailed Operations and Maintenance Plan should be agreed upon by all its stakeholders;

WHEREAS, it is of common interest for the Community People, Civic Organization and Association, the Community People of Brgy. Bulakin 1, Barangay Development Council, Barangay Council, Municipal LGU, Local Health Board to ensure the effective and efficient provision of services through a well defined Operations and Maintenance Plan;

WHEREAS, a consultation conference to finalize the operations and maintenance plan for Barangay Bulakin 1 has been conducted on January 16, 2004, held at Barangay Hall of Bulakin 1, Dolores, Quezon and was participated in by Brgy. Capt. Danilo Capilango, Moises Villaraza, Manuel Amat, Engr. Emil Manlo, Emanuel Calayag, and Michael Cauyan.

NOW THEREFORE, all parties hereby agree as follows;

I. GENERAL POLICIES

1.1 That the Bulakin 1 Waterworks and Sanitation System, Community Volunteers: Brgy. Capt. Danilo Capilango as chairman of the Barangay Development Council and Mayor Rolando San Jose, representing the municipal LGU; will ensure implementation of the operations and maintenance of the plan;

1.2 That the resources needed for the operations and maintenance will be a community/LGU responsibility, and as such reflected as Local Community Counterpart;

1.3 That the Department of Social Welfare and Development as the implementing Agency of the KALAHI Project shall be responsible in monitoring the compliance of the contracting parties to the specifications of these agreements;

II. ROLES

The following are the agreed roles/functions of the major stakeholders of the project:

2.1 The Local Health Board

2.1.1 Provide/conduct monitoring and technical assistance on the preparation of annual work and financial plan for the maintenance and operations of the Water system project.

2.2 The Barangay Sub-Project Management Committee

2.2.1 Monitors the yearly activity of the operations and maintenance of the Water System project

2.3 The Barangay Council

2.3.1 Inspects the implementation of the operations and maintenance of the Water System project

2.4 The Municipal LGU

2.4.1 Supports and extend financial assistance for the operations and maintenance of the Water System

IN WITNESS WHEREOF, all parties have here set their hands this 16th day of January 2004.

(Signed)
MOISES R. VILLARAZA
BSPMC Chair

(signed)
ROLANDO F. SAN JOSE
Municipal Mayor

(Signed)
HON. DANILO CAPILANGO
Brgy. Capt. Bulakin 1

SECTION 2.3 SAMPLE WRITESHOP DESIGN (SAMPLE 1)
POTABLE WATER PROJECT WRITESHOP: PROPOSALS, APPRAISALS AND MONITORING

SOURCE: *PEF-VISAYAS*

TRAINING DESIGN

TIME	MODULES	TOPICS	OBJECTIVES	METHODS	RESOURCES
Day 01					
0830-0900		Registration			Secretariat, Kits
0900-0930		Opening Ceremony			Program Guide
0930-1000		Preliminary Session	At the end of the session, the participants will be able to: express their expectations from the training; to outline writeshop objectives, schedule, contents and; enumerate methodologies.		Marking Pens, Metacards, Tape (PEF)
1000 -1030		Break			
	Module 1.0 PEF and Water Program				
1030-1115		1.1 Sharing/Contextualizing Water as Poverty Strategy/ Program	At the end of the session, the participants will be able to know the status and updates of PEF water projects.	Presentation	Brochure, Laptop, LCD, Screen (PEF)
1115-1215		1.2 Water Program Guidelines and Implementation Rules and Regulations and Processing of Proposals (Appraisal, Processing, Fundable Items, Approval, MOA, Fund Release, M and E,& Turn- over)	At the end of the session, the participants will be able to discuss Water Program Guidelines, Implementing Rules and Regulations and outline the processing of proposals and project implementation.	Presentation	Brochure, Laptop, LCD, Screen (PEF)
1215 -1315		Lunch			

TIME	MODULES	TOPICS	OBJECTIVES	METHODS	RESOURCES
1315-1430		1.3 Philippine Water and Sanitation Situation	At the end of the session, the participants will be able to enumerate and describe situations in the water and sanitation sector of the country; and identify implementing agencies.	Presentation	Handout, OHP, Screen (Ronnie)
	Module 2.0 Water Systems				
1430-1500		2.1 Water Service Levels	At the end of the session, the participants will be able to describe different water service levels and identify examples of each service level.	Presentation	Handout, OHP, Screen, Board, Pens (Ronnie)
1500 -1530		Break			
1530-1615		2.2 Parts of a Piped-Water System and Layouts, and Water Management Bodies	At the end of the session, the participants will be able to identify different major parts of a typical piped-water system and its layouts, and different management bodies.	Q and A Discussion Illustration	Handout, OHP, Screen, Board, Pens (Ronnie)
	Module 3.0 Water Project				
1615-1715		3.1 Strategies (Project Conditions, Community Participation, Integrated Planning and Implementation and Appropriate Technologies)	At the end of the session, the participants will be able to discuss the importance of community participation in community based/ managed projects, enumerate project conditions, identify project sustainability indicators, and explain the concept and importance of approtech.	Lecturette Presentation Q and A	Handout, OHP, Screen, Board, Pens (Ronnie)
Day 02					
0800-0830		Invocation, Recap and Announcement	To open up the day, recall the preceding day's sessions, relate learnings and announce writeshop and administrative matters.		(PEF and Participants)
0830-1115		3.2 Water Project Description/ Components - CO Process - Capability-Building - Engineering	At the end of the session, the participants will be able to discuss the applicable CO processes or activities, identify appropriate training titles and enumerate different engineering activities.	Presentation Q and A Discussion	Handouts, OHP, Screen, Transparencies (Ronnie)

TIME	MODULES	TOPICS	OBJECTIVES	METHODS	RESOURCES
1115-1200		3.3 Project Legal Requirements	At the end of the session, the participants will be able to enumerate and explain the steps/procedures in preparing and securing each required legal documents.	Presentation, Lecturette	Handouts, Laptop, LCD, OHP, Screen, Transparencies (Ronnie)
1200-1300		Lunch			
1300-1400		3.4 Effective Monitoring and Evaluation	At the end of the session, the participants will be able to discuss how the project implementation will be monitored and evaluated by the proponents and beneficiaries.	Presentation, Lecturette	Handouts, Laptop, LCD, OHP, Screen, Board, Pens (Ronnie)
	Module 4.0 Water Project Proposal				
1400-1500		4.1 PEF Proposal Format	At the end of the session, the participants will be able to describe and discuss the PEF Water Project Proposal Format.	Presentation	Forms, Laptop, LCD, Screen (PEF)
1500-1530		Break			
1530-1900		4.2 Proposal Writing (Case Study)	At the end of the workshop, each same grouped of participants will be able to develop and practice water project proposal writing and packaging.	Workshop (No1)	Computers, Forms, Data, Manila papers Transparencies, Pens, Tapes (PEF)
1900-2000		Dinner			
2000-2200		4.3 Proposal Writing Outputs Presentation	At the end of the session, each group will be able to present their proposal to the entire group.	Presentation Critiquing Deepening	Board, Tapes (Participants, PEF)
2200-2230		(Closing Program for the 2-day Writeshop Participants)		Program	Program Guide (PEF and Participants)
Day 03					
0800-0830		Invocation, Recap and Announcement	To open up the day, recall the preceding day's sessions, relate learnings and announce writeshop and administrative matters.		(PEF and Participants)

TIME	MODULES	TOPICS	OBJECTIVES	METHODS	RESOURCES
	Module 5.0 Project Proposal Appraisal and Project Monitoring and Evaluation				
0830-0930		5.1 PEF Appraisal Format	At the end of the session, the PEF DA participants will be able to describe and discuss the PEF Appraisal Format.	Lecturette	Forms, Laptop, LCD, Screen (PEF)
0930-1000		5.2 PEF Appraisal Report Packaging	At the end of the session, the participants will be able to discuss on how to edit, finalize and package a water project proposal appraisal report.	Presentation, Lecturette	Forms/samples, Laptop, LCD, (PEF)
1000-1030		Break			
1030-1100		5.3 PEF Monitoring and Evaluation	At the end of the session, the participants will be able to identify M and E parameters, and discuss the process in conducting M and E.		Forms/samples, Laptop, LCD, (PEF)
	Module 6.0 Basic Water System Planning and Designing				
1100-1200		6.1 Data Collection and Forms	At the end of the session, the participants will be able to identify relevant data to be gathered and outline the contents of data collection tool contents and formats.	Presentation, Lecturette	Forms, OHP, Transparencies, Laptop, LCD (Ronnie)
1200-1300		Lunch			
1300-1400		6.2 Design Provisions, Specifications, Tools and Process	At the end of the session, the participants will be able to enumerate design parameters, provisions and specifications and identify and discuss water supply CAD tools and processes.	Presentation, Lecturette	Forms, OHP, Transparencies, Laptop, LCD (Ronnie)
1400-1700		6.3 Water System CA Designing (Pipes and Tanks)	At the end of the session, the participants will be able to compute and size pipes and tanks.	Demonstration Designing Exercise	Computers, Printer, Laptop, LCD, Programs, Screen (Ronnie, Geoff)

TIME	MODULES	TOPICS	OBJECTIVES	METHODS	RESOURCES
1700-1730		6.4 Engineering Plans	At the end of the session, the participants will be able to identify required engineering detailed drawings and presentation formats and sequencing.	Presentation, Lecturette, Illustration	Sample Drawings, OHP, LCD, CDs, Transparencies, Laptop, (Ronnie)
1730-1800		6.5 Bill of Materials	At the end of the session, the participants will be able to identify the standard bill of material document contents and outline the formats.	Presentation, Lecturette	Forms, OHP, Laptop, LCD Transparencies, (Ronnie)
1800-1830		6.6 Schedule of Work	At the end of the session, the participants will be able to identify activities and estimate and project the duration of activities.	Presentation, Lecturette	Forms, OHP, Laptop, LCD Transparencies, (Ronnie)
1830-1900		6.7 Cost Estimates	At the end of the session, the participants will be able to compute project material and labor costs.	Presentation, Lecturette	Forms, OHP, Laptop, LCD Transparencies, (Ronnie)
Day 04					
0800-0830		Invocation, Recap and Announcement	To open up the day, recall the preceding day's sessions, relate learnings and announce writeshop and administrative matters.		PEF and Participants)
0830-1200		6.8 Project Site Data Collection	At the end of the session, the participants will be able to identify and discuss relevant information gathered at the project site.	Fieldtrip Fieldwork	Site, Vehicles, Instruments, Forms, (NGO, PEF, Ronnie)
1200-1300	Lunch				
1300-1500		Continuation of Data Collection			
1500-1530		Break			
1530-1900		6.9 Water System Designing	At the end of the session, the participants will be able to design a complete piped-water system.	Workshop (No. 2) Computation	Computers, Calculators, Manila papers, Pens (Participants)
1900-2000		Dinner			
2000-2200		Continuation of System Designing			

TIME	MODULES	TOPICS	OBJECTIVES	METHODS	RESOURCES
Day 05					
0800-0830		Invocation, Recap and Announcement	To open up the day, recall the preceding day's sessions, relate learnings and announce writeshop and administrative matters.		(PEF and Participants)
0830-1000		Presentation of Designs		Presentation Illustration Q and A Critiquing	Tapes, Board (Participants)
1000-1030		Break			
1030-1200		6.10 Pumping Facility Designing	At the end of the session, the participants will be able to enumerate parts of a pumping facility and compute/ design pump size/ capacity.	Lecturette Computation Illustration	Handouts, OHP, Screen, Transparencies, Pens (Ronnie)
1200-1300	Lunch				
	Module 7.00 Appropriate Technologies				
1300-1330		7.1 Ferrocement	At the end of the session, the participants will be able to discuss the concepts and principles of presented appropriate technologies and enumerate the advantages and disadvantages of each technology.	Presentation Q and A Illustration Discussion	Laptop, LCD, Screen (Ronnie)
1330-1400		7.2 Photovoltaic Water Pumping System (PVP)			Laptop, LCD, Screen (Ronnie)
1400-1430		7.3 Hydraulic Ram			Laptop, LCD, (Resource (Person)
1430-1500		7.4 Biological Filtration			Laptop,LCD (Geoff)
1500-1530		Break			
1530-1600	Synthesis and Wrap up Closing Ceremony			Discussion	(Ronnie, PEF)
1600-1630	Closing Ceremony	Closing Program for the 4-day Writeshop Participants)		Program	(PEF)

SAMPLE WRITESHOP DESIGN (SAMPLE 2)
POTABLE WATER PROJECT WRITESHOP: PROPOSALS, APPRAISALS AND MONITORING

SOURCE: *PEF-VISAYAS*

Training Objectives:

- Orient project partners on PEF Water Program Guidelines, Implementing Rules and Regulations, Formats and processing of proposals.
- Enable project partners to develop and/or improve their project proposals to meet PEF standards and specifications
- Build project partners' capacities and understanding of potable water project implementation
- Obtain input from project partners on how to further improve PEF guidelines and formats

Target Participants:

- PEF project partners

Materials Needed:

- Project proposals
- Visual aids (PowerPoint presentation, etc)

Duration:

- Two days

Design:

Registration

Opening Ceremony

Preliminary Session

Break

Session 1: PEF and Water Project Proposal and Appraisal
Sharing/Contextualizing Water as Poverty Strategy/Program
Water Program Guidelines, Implementation Rules and Regulations in Processing of Proposals
Presentation of Analysis
Results and PEF Project Proposal Format

Lunch

Open Forum: Solicitation of Suggestions and Derivation of Final Revised Formats

Session 2: Water Project Components
Water Project Description and Components

- Community Organizing Process
- Capability Building
- Engineering

Water Project Fundable Costs
Workshop No. 1 Proposal Writing, Part 1

Day 2

Invocation, Recap and Announcements
Workshop Outputs Presentation and Critiquing
Break

Understanding Project Legal Requirements
Developing Project Results and Objectives
Lunch

Project Implementation and Management
Project Monitoring and Evaluation
Project Implementation Scheduling

Workshop No. 2 Proposal Writing, Part II
Workshop Outputs Presentation and Critiquing

PEF Project Implementation and Management
PEF Project Monitoring and Evaluation

Day 3

Invocation, Recap and Announcement
Session 3: Basic Water System Planning and Designing
Training Needs Assessment
Appraisal Format Presentation
Data Collection and Forms
Design Provisions, Specifications, Tools and Process
Lunch

Technical Documents
Engineering Plans
Bill of Materials
Break

Schedule of Work
Appraisal Report Packaging
Writeshop Synthesis
Closing Ceremony

SECTION 2.4
A REPORT ON PRELIMINARY FEASIBILITY STUDY

SOURCE: *WATER RESOURCES CENTER UNIVERSITY OF SAN CARLOS CEBU CITY*

SUMMARY OF RESULTS

1.0 GENERAL
- 1.1 Project Location _____:
- 1.2 Project Name _____:
- 1.3 Water Service Level _____:
- 1.4 System Life _____:
- 1.5 Project Beneficiaries_____:
- 1.6 Project Costs_____:
- 1.7 Project Duration_____:

2.0 TECHNICAL
- 2.1 Water Source _____:
- 2.2 Transmission Pipeline _____:
- 2.3 Storage and Chlorination Facilities
  - 2.3.1 Storage
    - Capacity_____:
    - Shape_____:
    - Material _____:
    - Plumbing Lay-out _____:
    - Placement _____:
  - 2.3.2 Chlorinator
    - Capacity_____:
    - Shape_____:
    - Material _____:
    - Plumbing Lay-out _____:
    - Placement _____:
  - 2.4 Distribution Facilities (for all Options)
    - Total Length_____:
    - Pipe _____:
    - No. of Blow-off Valves _____:
    - No. of Control Valves _____:
  - 2.5 Service Connections
    - No. of Connections _____:
    - Type of Tapping_____:
    - Pipe Diameter _____:
    - Pipe Material _____:
    - Fixtures _____:
  - 2.6 Pipe Sup ports and Valve Boxes
    - No. of Supports _____:
    - No. of Boxes_____:
  - 2.7 Power
    - Type _____:
    - Phase _____:
    - No. of Transformers _____:
    - No. of Posts _____:
  - 2.8 Pumping Facilities
    - Type of Pump _____:
    - Horsepower_____:
    - Phase _____:
    - Discharge Rate _____:
    - Total Dynamic Head _____:

1.0 INTRODUCTION
- 1.1 Purpose
- 1.2 Scope of the Study
- 1.3 Scope of Work

2.0 DESCRIPTION OF THE STUDY AREA
- 2.1 The Geographic Location
- 2.2 The Geology
- 2.3 The Hydrology
- 2.4 The Populace
- 2.5 The Existing Water Supply and Sanitation Facilities

3.0 FINDINGS AND CONCLUSIONS
- 3.1 Technical
- 3.2 Non-Technical

4.0 RECOMMENDATIONS
- 4.1 Technical
- 4.2 Non-Technical

COST ESTIMATES

Project Location :_____

Project Name :_____

Project Cost :_____

Description

1.0 MATERIAL + LABOR COSTS

- 1.1 Well Rehabilitation _____
- 1.2 Transmission Pipeline _____
- 1.3 Water Tank Rehabilitation _____
- 1.4 Distribution Pipeline _____
- 1.5 Service Pipeline _____
- 1.6 Tapstands _____
- 1.7 Valve Boxes _____
- 1.8 Pipe Supports _____
- 1.9 Power Line _____
- 1.10 Pump _____

Sub-Total_____

2.0 CONTINGENCY (5% of Material + Labor Costs)

3.0 CONSULTANCY

SCHEDULE OF WORK
FOR OPTION A

Project Location :
Project Name :
Project Cost :
Project Duration :

ITEM NO.	ACTIVITIES		WEEKS																			NO. OF DAYS
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
A	Mobilization																						
1	Well Rehabilitation of Existing Drilled Well																						
2	Pumping Test																						
3	Transmission Pipeline Installation	T																					
		P																					
4	Water Tank Rehabilitation																						
5	Distribution Pipeline Installation	T																					
		P																					
6	Service Pipeline Installation																						
7	Tapstand Construction																						
8	Valve Box Construction																						
9	Pipe Support Construction																						
10	Power Line Installation																						
11	Pump Installation																						
B	System Test Run, Correctional Works and Disinfection																						

OPTION A
T – Trenching
P – Pipe Laying

COST ESTIMATES

Project Location :_____

Project Name :_____

Project Cost :_____

Description

1.0 MATERIAL + LABOR COSTS

- 1.1 Well Construction _____
- 1.2 Transmission Pipeline _____
- 1.3 Water Tank Rehabilitation _____
- 1.4 Distribution Pipeline _____
- 1.5 Service Pipeline _____
- 1.6 Tapstands _____
- 1.7 Valve Boxes _____
- 1.8 Pipe Supports _____
- 1.9 Power Line _____
- 1.10 Pump _____

Sub-Total _____

2.0 CONTINGENCY (5% of Material + Labor Costs)

3.0 CONSULTANCY

SCHEDULE OF WORK
FOR OPTION B

Project Location :
Project Name :
Project Cost :
Project Duration :

ITEM NO.	ACTIVITIES		WEEKS																				NO. OF DAYS
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
A	Mobilization																						
1	Well Rehabilitation of Existing Drilled Well																						
2	Pumping Test																						
3	Transmission Pipeline Installation	T																					
		P																					
4	Water Tank Rehabilitation																						
5	Distribution Pipeline Installation	T																					
		P																					
6	Service Pipeline Installation																						
7	Tapstand Construction																						
8	Valve Box Construction																						
9	Pipe Support Construction																						
10	Power Line Installation																						
11	Pump Installation																						
B	System Test Run, Correctional Works and Disinfection																						

OPTION A
T – Trenching
P – Pipe Laying

COST ESTIMATES

Project Location :_____

Project Name :_____

Project Cost :_____

Description

1.0 MATERIAL + LABOR COSTS

- 1.1 Well Construction _____
- 1.2 Transmission Pipeline _____
- 1.3 Water Tank Rehabilitation _____
- 1.4 Distribution Pipeline _____
- 1.5 Service Pipeline _____
- 1.6 Tapstands _____
- 1.7 Valve Boxes _____
- 1.8 Pipe Supports _____
- 1.9 Power Line _____
- 1.10 Pump _____

Sub-Total _____

2.0 CONTINGENCY (5% of Material + Labor Costs)

3.0 CONSULTANCY

SCHEDULE OF WORK
FOR OPTION C

Project Location :
Project Name :
Project Cost :
Project Duration :

ITEM NO.	ACTIVITIES		WEEKS																				NO. OF DAYS
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
A	Mobilization																						
1	Well Rehabilitation of Existing Drilled Well																						
2	Pumping Test																						
3	Transmission Pipeline Installation	T																					
		P																					
4	Water Tank Rehabilitation																						
5	Distribution Pipeline Installation	T																					
		P																					
6	Service Pipeline Installation																						
7	Tapstand Construction																						
8	Valve Box Construction																						
9	Pipe Support Construction																						
10	Power Line Installation																						
11	Pump Installation																						
B	System Test Run, Correctional Works and Disinfection																						

OPTION A
T – Trenching
P – Pipe Laying

COST ESTIMATES

Project Location :_____

Project Name :_____

Project Cost :_____

Description

1.0 MATERIAL + LABOR COSTS

- 1.1 Well Construction _____
- 1.2 Transmission Pipeline _____
- 1.3 Water Tank Rehabilitation _____
- 1.4 Distribution Pipeline _____
- 1.5 Service Pipeline _____
- 1.6 Tapstands _____
- 1.7 Valve Boxes _____
- 1.8 Pipe Supports _____
- 1.9 Power Line _____
- 1.10 Pump _____

Sub-Total _____

2.0 CONTINGENCY (5% of Material + Labor Costs)

3.0 CONSULTANCY

SCHEDULE OF WORK
FOR OPTION D

Project Location :
Project Name :
Project Cost :
Project Duration :

ITEM NO.	ACTIVITIES		WEEKS																				NO. OF DAYS
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
A	Mobilization																						
1	Well Rehabilitation of Existing Drilled Well																						
2	Pumping Test																						
3	Transmission Pipeline Installation	T																					
		P																					
4	Water Tank Rehabilitation																						
5	Distribution Pipeline Installation	T																					
		P																					
6	Service Pipeline Installation																						
7	Tapstand Construction																						
8	Valve Box Construction																						
9	Pipe Support Construction																						
10	Power Line Installation																						
11	Pump Installation																						
B	System Test Run, Correctional Works and Disinfection																						

OPTION A
T – Trenching
P – Pipe Laying

TABLE 1.0 INVENTORY LIST OF WELLS

Notation	Ownership	Yield	Elev. AMSL (m)	Boehole depth (m)	SWL (m)	Casing		Drop Pipe		Pump Type	No. of Users HH	Usage	Remarks
						Dia. (mm)	Mat.	Dia. (mm)	Mat.				

Note: lps – Liter per second
SWL – Static Water Level
Mat. – Material
NA – Not Applicable

Elev. – Elevation
Dia. – Diameter
HH – Household

AMSL – Above Mean Sea Level
GI – Galvanized Iron
W-1 – Well No. 1

m – meter
mm – millimeter
_n – Not Measured

* – As reported by the local people. Not accessible for depth sounding

TABLE 2.0 INVENTORY LIST OF SPRINGS

Notation	Name of Water Source	Location	Yield (lps)	Elev. AMSL (m)	No. of Users (HH)	Usage	Remarks

Note: lps – Liter per second S-1 – Spring No. 1 Elev. – Elevation AMSL – Above Mean Sea Level m – meter HH – Household

SECTION 2.5
RECOMMENDED PROJECT APPRAISAL PROCESS OF PEF

SOURCE: *PEF Manual of Program Operations, 2004*

I. PROPOSAL SUBMISSION

- *Proposal Format.* Following a standard format, a project proposal must be submitted by a qualified proponent pursuant to the conditions contained in Section C.1 (Project Eligibility Criteria).
- *Documentary requirements.* All proposals must be submitted with the following documents:

  Organization-related documents

  i. Copy of SEC/PCNC/CDA registration
  ii. Copy of proponent's Articles of Incorporation and By-Laws
  iii. Audited financial statements of proponent for the last two years
  iv. Notarized Board Resolution indicating the requested assistance from PEF and naming at least two authorized representatives designated to sign all documents pertaining to the project
  v. Curriculum vitae of the officers and management staff of the organization

  Project-related documents

  vi. Location map showing project sites or areas
  vii. Detailed financial schedules of proposed budget (including notes and assumptions)

  Potable Water Project-specific documents

  viii. Documents showing proof of counterpart funding (if the project will use counterpart funds from other donors)
  ix. Plan, drawings, specifications for infrastructure, machinery and equipment, etc. (if applicable)
  x. Training design/modules (if applicable)

- *Submission of proposals.* National or inter-regional level proposals must be submitted to the Associate Director while regional/provincial/municipal-level proposals may be submitted through the regional offices.
- *Proposal forms.* Proposal Forms may be accessed through the Foundation's website www.peacefdn.org.
- *Technical assistance for proposal completion.* Subject to the assessment of the Foundation, development associates may be sent to assist proponents, especially small organizations, in developing or completing their proposals.

II. PROPOSAL SCREENING

- *Receipt of proposal.* Once a proposal is received, it is assigned a receipt number by the national program officer.
- *Initial review.* The regional program officer shall review compliance with primary documentary requirements listed in the proponent eligibility criteria (Section C.1.3)
- A proposal that passes the initial/basic review for eligibility shall then be forwarded to the regional manager who will decide on any of the next actions to take:

a) Return the proposal to the proponent for additional data, revisions or other requirements

b) Assign a development associate to appraise the proposal and assist the proponent in developing or completing the proposal

c) Consult other members of the regional office or the national office on other appropriate actions to take on the proposal

- *Scheduling the proposal appraisal.* Once an associate is assigned to the project, the proponent is informed of the schedule of appraisal and other project requirements needed for the final appraisal.

III. PROPOSAL APPRAISAL

- *Assigning a development associate.* The Foundation shall contract the services of a development associate to conduct a proposal appraisal (See Section E.6 on Development Associates). The development associate assigned to the project is provided with Terms of Reference for the conduct of the appraisal (See Appendix XVII for sample terms of reference).
- *Conducting the Appraisal.* The development associate then conducts the appraisal through field visits and consultations with the proponent. The associate subsequently prepares and submits an appraisal report or makes a project presentation (See Appendix IV) in a regional gridding activity. The regional gridding was participated in by the members of the regional office and other associates.
- *Presenting the appraisal results.* Subject to comments raised during the gridding, the proposal is either endorsed to the national office for national gridding or is sent back to the proponent for additional revisions and requirements prior to endorsement to the national office.

IV. GRIDDING

Gridding is the process undertaken by the Foundation on a regular basis to review proposals that have been previously appraised and endorsed. It is a collegial twostep process undertaken first at the regional and then at the national level to ensure that all projects supported by the Foundation conform with set requirements, and are in line with its program goals of poverty reduction and empowerment. Projects that do not pass the gridding process are reappraised, redeveloped or rejected.

- *Regional gridding.* Regional gridding is conducted at least once a month in every region by the regional offices. It is facilitated by the regional manager and participated in by the other officers of the regional office and development associates assigned to various projects. The regional program officer coordinates the regional gridding and documents the results.
  - Regional gridding is focused on evaluating the following aspects of project proposals being considered (though other aspects may also be assessed):
  - Compliance with minimum requirements
  - Technical design and details of the proposal
  - Eligibility and track record of the proponent
  - Project objectives and projected impact vis-àvis proposed budget (cost-benefit analysis)
  - Project components and strategy
  - Sustainability mechanisms

- *National gridding*. The regional gridding is followed by the conduct of a national gridding to review proposals approved in the regional gridding. The national gridding is facilitated by the Associate Director and participated in by the Executive Director and the Regional Managers. Regional officers may be requested to participate in the national gridding as necessary. The National Program Officer coordinates the schedule of the national gridding and documents the results.

  National gridding focuses on evaluating the following aspects of project proposals being considered (though other aspects may also be assessed):

  - project objectives are consistent with PEF program thrusts and national and regional priorities
  - Amount of financial support proposed is consistent or correspond with the project objectives and targets
  - Sustainability mechanisms
  - Partnership-building strategies
  - Innovative approaches

VI. FINAL APPROVAL

The national gridding is the final venue for the appraisal of the projects. Projects approved in the national gridding are then endorsed either to the Program Committee or the Board of Trustees for final approval. Rejected proposals. Projects that do not pass the gridding process are sent back to the regional officer for appropriate action.

SECTION 2.6
PEF DOCUMENTARY REQUIREMENTS FOR PROPOSAL APPRAISAL

CHECKLIST OF REQURED DOCUMENTS

I. Basic Information:

Reference No.:	PR-0602-218	AP-1002-00041
Project Title:		
Proponent:		
Contact Person: Designation:		
Manila Address: Provincial Address:		
Tel/Fax No.: Provincial No.: Email Address:		

II. Document Checklist:

Note: Check ☑ all available documents	Date Received	Remarks/ Comments
Organization-Related		
☐ Copy of SEC/PCNC/CDA registration		
☐ Copy of Articles of Incorporation & By-Laws		
☐ Audited financial statements for last 2 years		
☐ Notarized Board Resolution indicating requested assistance from PEF		
☐ Notarized Board Resolution naming 2 authorized representatives who will sign documents pertaining to the project		
Project-Related		
☐ Project Proposal or Concept Paper		
☐ Location map showing projects areas/sites		
☐ Community Profile (baseline data)		
☐ Detailed financial projections of proposed budget (including notes & assumptions		
Project-Specific		
☐ Business Plan (if project is an enterprise)		
☐ Guidelines for revolving credit funds (if applicable)		
☐ Documents showing proof of approved funding (if the project will use conterpart funds from other donors/sources)		
☐ Plans, drawings, specifications for infrastructure, machinery & equipment (if applicable)		
Others		
☐		
☐		
☐		

POTABLE WATER SPECIFIC DOCUMENTARY REQUIREMENTS:

1. Engineering plans
    a. spot maps
    b. structural
    c. plumbing
2. Hydraulic computations
3. Bill of materials (detailed)*
4. Schedule of works*
    a. manpower
    b. days
5. Legal papers*
    a. Resolutions (organization, Board, Barangay Council, etc)
    b. NWRB Application
    c. Donation (Deed of donation)
    d. Right of way (ROW)
6. Cost Estimates*
    a. 10% contingency fund
    b. Hauling
7. Training program and schedule
8. Training budget
9. Potability test* (from DOH, RSI)

* Detailed minimum requirements prior to appraisal

SECTION 2.7A
PROJECT PRESENTATION FORMAT

SOURCE: *PEACE EQUITY ACCESS FOR COMMUNITY EMPOWWERMENT FOUNDATION, INC. (PEF) POTABLE WATER SUPPLY PROJECT*

(Note: The primary data are to be provided ideally by the proponent.)

1.0 SUMMARY

1.1 Identifying Information

Project Title	(Please limit title to 7 words)
Project Site/s Island Coverage Region: Province: Municipality/ District:	(Exact location of the project; not the proponent's address) ☐ Luzon ☐ Visayas ☐ Mindanao ☐ Nation-wide
Direct Beneficiaries (Please check sector/s and fill in estimated number)	

	SOCIO-ECONOMIC SECTORS	MALE	FEMALE	TOTAL
	☐ Farmers			
	☐ Landless Rural Workers			
	☐ Fisher folk			
	☐ Wage-earners			
	☐ Micro-entrepreneurs			
	☐ Migrant workers			
	☐ Multi-sectoral/ HH			
	☐ Others			
	☐ Others			
	Socio-Political Sectors (check sectors covered only)			
	☐ Women			
	☐ Indigenous People			
	☐ Youth/students			
	☐ Physically challenged			
	☐ Senior Citizens			
	☐ Victims of Calamities			
	☐ Urban Poor			
	☐ Rural Poor			

Indirect Beneficiaries (If applicable, please check sector/s and fill in estimated number				
	Basic Sectors	Male	Female	Total
	☐ Farmers			
	☐ Landless Rural Workers			
	☐ Fisher folks			
	☐ Wage-earners			
	☐ Micro-entrepreneurs			
	☐ Migrant workers			
	☐ Multi-sectoral/ HH			
	☐ Others			

Proponent Organization		
Organization Name: Acronym: Contact Persons Name: Designation Name: Designation Mobile Phone No.: Email: Telephone: Telefax: Date Organized: Date Registered:		
Proponent Type	(Please check appropriate box)	
	☐ People's Organization (PO)	☐ PO Network
	☐ Cooperatives	☐ Cooperative Federation
	☐ NGO	☐ NGO Network
	☐ Social Action Center	☐ Others

Project Type	(Please check appropriate box)
	1) Livelihood and Employment
	☐ Financial Services
	☐ Agricultural Development
	☐ Micro-Enterprise
	2) Basic Social Services
	☐ Potable Water System
	☐ Housing
	☐ Health
	☐ Education
	3) Social Capital
	☐ Partnership Building
	☐ Institutional Development Support
	4) Others
	☐ Researches
	☐ Relief & Rehab
	☐ Others

1.2 Project Assessment

(State in fifty (50) words or less what the project intends to do and its expected impact on its target beneficiaries.)

1.3 Project Cost

Component		Recommended		From Other Sources
A. Insti. / Com. Dev.		PhP		PhP
B. Capability-Building				
C. Engineering				
TOTAL		PhP		PhP

Note: Indicate the reasons for variance in the proposal recommended.

2.0 THE PROJECT CONTEXT

2.1 The Area/Community
(What is the general situation in the recipient municipality/community (e.g., in terms of the following?)

a) Basic Community Profile
- Income class of town/municipality
- Number of barangays
- Total population and population growth rate
- Population of beneficiary group
- Agricultural area by type of crop
- Income levels of people in the community

b) What are the indicators of poverty in the community? Indicate if possible how many are affected?
   - Economic
   - Basic Services
   - Governance/Community Empowerment
   - Environment
   - Others
   - If available, refer to poverty map

c) How do these indicators compare with neighboring towns/communities?

2.2 The Problem/Need and Beneficiary Group(s) Affected

(What is the problem/need that is directly addressed by the project?)

What sectors of the community and how many people (males and females) are affected by the problem?)

2.3 Previous/On-going Initiatives

(Who are the community stakeholders responding to the problem?)

(What have the proponent and other stakeholders like the BLGU and MLGU done? List down significant accomplishments or outputs if any)

2.4 Site Description

2.4.1 Geography
(Boundary and roadmaps: Barangay, municipal and province; population, livelihood)

2.4.2 Hydrology
(Topographic map; Information on climate, rainfall, drainage, vegetation)

2.4.3 Geology
(Geologic map: Type and names of rocks and their significance to water)

2.4.4 Existing Water Source(s)
(Description of existing water resources supplemented by a map showing the location of springs and wells).

2.4.5 Existing Water System(s)
(Description of existing water systems supplemented by a map/plan reflecting Levels I, II & III facilities: hand pumps, piped systems, rainwater collectors…)

3.0 PROJECT DESCRIPTION

3.1 Project Results/Objectives
(Entries to be entered in the tables below should also include capability-building activities, community organizing activities and water system construction activities.)

3.1.1 Community/Household level

By the End of Six Months	By End of One Year	Terminal Objectives

(The terminal objectives must try to show, measure, describe or elaborate the difference before and after the project. These may include effects on Women and Children and on Environment

3.1.2 Partner/Organizational level

By the End of Six Months	By End of One Year	Terminal Objectives

3.1.3 Others, e.g. Local Governance

By the End of Six Months	By End of One Year	Terminal Objectives

3.2 Client Strategy/Project Outreach
(When and how will the project cover the different areas targeted?
For example, a new pipeline will be installed to reach the areas by 2004, additional tapstand units will be constructed in each overcrowded sitio, etc.)
(Describe the following project aspects of the proposal:

3.2.1 Institutional/Community Development
(Strategies and activities required to organize/reorganize or strengthen the water management body)

3.2.2 Capability-Building
(Appropriate capability-building activities or training both for water management body and for beneficiaries/community.)

3.2.3 Engineering (Water System Construction)
(Briefly, describe who/how was the proposed water system planned and designed, how was the water source selected, where and how the water source will be developed, how water be treated/disinfected, transmitted and distributed to the service area(s) and where/how will water be fetched?)

3.3 Project Water System Description

3.3.1 Water Source (Supply) Development
(In detail, describe how the selected water source(s) will be constructed, developed/utilized or rehabilitated.)

3.3.2 Water System Components
(Physical description of all basic parts supported with maps, figures, tank and pipe sizing hydraulic computations, engineering drawings, listing of materials, schedule of work and cost estimates. The text in this section must be referred to attached proposed water system-related documents.)

3.3.3 Water Source Management
(Mention about the following: water sampling and results, measures/activities to be adopted/implemented relative to watershed protection, preservation and conservation.)

3.4 Project Water System Management and Operation
(Describe who/how the water system will be managed relative to administrative and operations. How will the system be financially sustained? Who/how/when are collections being done and who/where will revenues be kept. What are the intentions of the generated water revenue?)

3.5 Project Management
(Who are the key officers and staff who will be directly accountable for the project?)

Position	Name

(Please describe the management scheme and internal monitoring and evaluation procedures.)

3.6 Project Financials
(Based on the project cash flows and project financial statements:
a) Are the benefi ts/returns greater than the costs?
b) Can the project be sustained after PEF assistance?)

4.0 PROJECT PROPONENT

4.1 Background of the Proponent
(General VMG, area of operation, number of members and type of projects implemented and other basic organizational information.)

4.2 Track Record of the Proponent
(What is the track record of the proponent in relation to the proposed project? Analysis of financial statement and income statement).

(What are the key indicators that would indicate the proponent's capability to manage the project successfully?)

(What are the key indictors that would indicate the proponent's weakness to manage the project successfully?)

5.0 FINDINGS AND CONCLUSIONS

(Make comments on proponent's strategies/methods of the following project aspects):

5.1 Institutional/Community Development
5.2 Beneficiary Capability-Building
5.3 Engineering (Water System Construction)

6.0 RECOMMENDATIONS

6.1 Technical Recommendations / Considerations
(Formulate recommendations / considerations based on submitted documents, site

location, financial, social, organizational and technical capabilities of the proponents relative to their proposed project.)

6.2 Financial Support Recommended

(How much resources are RECOMMENDED for the effective implementation of the project?)
(Indicate the local counterpart and the contributions to the project from other stakeholders.)

Line Items	Total Cost	Requested		Local Counterpart		Amount from Others	
		Loan	Grant	Proponent	Beneficiary	LGU	Donors
Salaries							
Staff Devt							
MOOE							
Others							
Total Institutional Support							
Field Visits							
Skills Trainings							
Others							
Total Client Development							
Materials							
Labor							
Contingency							
Total Direct Project Cost							
TOTALS	-		-	-	-		

6.3 Terms and Conditions of Assistance

6.3.1 The loan shall be subject to the following terms:

Schedule of release

SCHEDULE OF RELEASE	AMOUNT (PhP)	CONDITION OF RELEASE
1st release		
2nd release		
Total		

Loan Profile

ITEM	TERMS AND CONDITIONS
Maturity Period/ Duration	
Interest Rate	Twelve percent (12%) per annum –straight line basis
Repayment Conditions	• Principal • Interest
Security	•
Mode of Payment	• Post Dated Checks in favor of PEF
Others	•

v6.3.2 The grant shall be released based on the following schedule:

SCHEDULE OF RELEASE	AMOUNT (PhP)	CONDITION FOR RELEASE
1st release		
2nd release		
Total		

7.0 RISK ANALYSIS

(What can go wrong with the project?)
(What mitigating or preventive mechanisms need to be installed by PEF and the proponent?)

8.0 DOCUMENT CHECKLIST*

(Aside from the Project Proposal itself, the following shall be provided by the proponent and submitted:)

8.1 Project Document-Related Documents
- 8.1.1 Location Maps: Barangay, Municipal and Provincial)
- 8.1.2 Topographic Map (optional)
- 8.1.3 Geologic Map (optional)
- 8.1.4 Water Resources Map
- 8.1.5 Existing Water Systems Map
- 8.1.6 Capability-Building Program and Budget
- 8.1.7 Project Management Organizational Structure
- 8.1.8 Documents showing proof of approved funding (if project will use counterpart funds from other donors)

8.2 Project Water System-Related Documents
- 8.2.1 Proposed Piped-Water System Layout/Plan
- 8.2.2 Structural Detailed Plans of Major System Components: Intake Box, Water Tank, Tapstands, Valve Boxes, Chlorinator

8.2.3 Plumbing Detailed Plans at Major System Components: Intake Box, Water Tank, Tapstands, Valve Boxes, Air-release, Drain, Blow-off Valves and Chlorinator `

8.2.4 Bill of Materials

8.2.5 Schedule of Work

8.2.6 Cost Estimates

8.2.7 Hydraulic Computations: Tank and Pipe Sizing

8.2.8 Water Bacteriological Test Results at proposed water source

8.2.9 Legal Documents: Deeds of Donation/Sale, Rights of Way

8.3 Project Proponent-Related Documents

8.3.1 SEC/CDA/DOLE Registration

8.3.2 Article of Incorporation and By-Laws

8.3.3 Audited Financial Statements of Proponent for the last two (2) years

8.3.4 Notarized Board Resolution indicating the requested assistance from PEF and naming at least two authorized representatives who will sign all documents pertaining to the project.

8.3.5 Curriculum Vitae of the officers and management staff of the organization/ proponent

(The above documents shall be made as Attachments of the project proposal, arranged according to the listing above with new designated numbers.)

Attachments:

1. Engineering plans
   a. Spot maps
   b. Structural
   c. Plumbing
2. Hydraulic computations
3. Bill of Materials (detailed)*
4. Schedule of Works*
   a. Manpower
   b. Days
5. Legal papers*
   a. Resolutions (organization, Board, Barangay Council, etc)
   b. Donation (Deed of Donation)
   c. Right of Way (ROW)
6. Cost Estimates*
   a. 10% contingency fund
   b. hauling
7. Training program and schedule
8. Training budget
9. Potability Test* (from DOH, RSI)

* Detailed minimum requirements prior to appraisal

SECTION 2.7B
SAMPLE PROJECT PROPOSAL AND PROJECT PRESENTATION REPORT FOR POTABLE WATER

EXECUTIVE SUMMARY

Project Title:	Balikatan Tungo sa Katatagan ng Antipolo (BALIKATAN) Water Project
Project Type:	Rehabilitation and Development
Project Site:	Bgy. Antipolo, Gasan, Marinduque A priority of Gasan Engineering Office and MPDC
Direct Beneficiaries:	180 HH or 900 beneficiaries for year 1 Out 323 HH total population
Project Duration:	Entire project 1 year • 1st to 2nd month – Pre-construction Activities • 3rd to 6th month – Construction Period • 7th to 12th month – Post Construction Activities

PROJECT CONTEXT – WATER SITUATION:

- Current Status/Potential
    1. There used to be a water system sourced out from a spring but it dried up in 1998 and at present the concrete reservoir is not functional. The GI pipes had been excavated except those not suitable for use anymore.
    2. To date, water sources are from two (2) hand pumps provided by the municipality of Gasan back in year 2000 and there are dug wells which are privately owned. However, both sources do not meet the needs of the residents because the average volume of output is less than 1 liter per second.
    3. The presence of the hand pumps and dug wells are indications that water could be sourced by way of a deep well but drilling deeper is needed in order to the reach water level.

- Poverty Situation/Need
    1. Because of the limited water supply in the community, the residents fetch water along the main road about 3 to 5 kms away from the barangay proper 8 kms from farthest sitio
    2. Water supply is also available from peddlers which cost PhP 8 to PhP 10.00 per liter and for drinking about PhP 12.00 to PhP 15.00 per liter.
    3. Water available in the community had been tested by the provincial hospital as positive for E-coli which is not safe for dinking.
    4. Similar to other barangays, water is scarce during the summer season, so that residents usually line up with water pails wherever water sources are available within or outside the community. In the same manner, time spent ranges from 8 to 12 hours to fetch water.
    5. Water wastage is common among those who own dug wells but this is also shared for washing and besides it is not potable.

- Local Governance
    1. The Barangay Council is the only legitimate and recognized structure in the community and no presence of any national or local NGOs. Since the barangay has areas under the land reform program, DAR is transparent in the community delivering its program services and/or projects to the Agrarian Reform Communities (ARC) for about five (5) now.
    2. To date, DAR has formed two (2) ARCs and one of which excel in terms its organizational strength (i.e., Bayanihan Linis Tanim Multi Purpose Cooperative – BALITA MPC) since its formation in October 20, 2002.

Proponent:	Bayanihan Linis-Tanim Multi Purpose Cooperative (BALITA MPC)
• Year Organized	October 20, 2002 – Agrarian Reform Cooperative A People's Organization duly recognized by the local provincial offices of DAR and CDA in Marinduque
• Registration Date	December 28, 2005
• Registering Agency	Cooperative Development Authority, Calamba Ext. Office
• Registration No.	LGA-6564
Proponent's Local Partners	Municipal and Barangay LGUs vis-à-vis Technical/Financial Inputs c/o Gasan Engineering Office & MPDC (i.e., in particular Level III component) DAR vis-à-vis Institutional/Organizational Inputs

PROJECT OBJECTIVES/INDICATORS

- Community/Household Level

BY END OF SIX MONTHS	END OF 1 YEAR
An 80-ft Deep Well will be operational to supply the water of 180 household with facilities such as: • Pump, Riser Pipes and Power Supply • 25,000 liters reservoir • 1,380 meters of Pipelines and 21 TapStands With available water source, fetching distance is reduced by an average of 3 kilometers and time by an average of 6 hours	Beneficiaries has agreed to pay water tariff formulated by the project Partner and other collaborating LGUs and local partners.

- Proponent/Partner Level

BY END OF SIX MONTHS	END OF 1 YEAR
Project Proponent/Partner has acquired technical and managerial skills/ experience to operate a sustainable water project vis-à-vis utilization of the low-cost ferro-cement reservoir. financial system to manage tariffs in the place.	Action Plans of LGU counterpart for Level III formulated for installation Project Proponent/Partner has formulated implementing rules and regulation on water tariff.

Name of PEF Development Associate: SOSTENES C. GENZOL

Financial Package

COMPONENT	PROPOSED	RECOMMENDED	%
A. Institutional Support		45,000.00	4%
B. Client Development		45,000.00	4%
C. Direct Project Cost	1,335,537.00	980,490.50	92%
Total	1,335,537.00	1,070,490.50	100%

PEACE AND EQUITY FOUNDATION
PROJECT PRESENTATION REPORT

1.0 SUMMARY

1.1 IDENTIFYING INFORMATION

Project Title:	Balikatan Tungo sa Katatagan ng Antipolo (BALIKATAN) Water Project
Project Type:	Water Supply Rehabilitation and Development
Project Site:	Bgy. Antipolo, Gasan, Marinduque A priority of Gasan Engineering Office and MPDC
Direct Beneficiaries:	180 HH or 900 beneficiaries for year 1 Out 323 HH total population
Project Duration:	Entire project 1 year • 1st to 2nd month – Pre-construction Activities • 3rd to 6th month – Construction Period • 7th to 12th month – Post Construction Activities

Project Assessment

- The proposed project as requested for funding support by PEF is Level II
- Initial information gathered from Gasan Mayor (Capt. Tolentino) and Municipal Engineer (Engr. Emil Sosa) was that they fund the Level III component once Level II is completed
- Year I of the proposed project will target 180 hh and with the Level III component a total 323 hh will be reached
- Fetching distance and time will be dramatically reduced
- Considering that the residents are coconut farmers, they engaged in other crop and vegetable production thereby increase in yield and income is expected with available water for irrigation

PROJECT COST

COMPONENT	PROPOSED (PhP)	RECOMMENDED (PhP)	%
A. Institutional Support		45,000.00	4%
B. Client Development		45,000.00	4%
C. Direct Project Cost	1,335,537.00	980,490.50	92%
Total	1,335,537.00	1,070,490.50	100%

2.0 THE PROJECT

2.1 THE AREA/COMMUNITY

a. Basic Community Profile

- Population (by sector): 323 Households
- Major Economic Activities: Coconut and Inter-crop Production
- Total Population: 1,615 Individuals (i.e., 5 members/hh)
- Population Growth Rate: 2%

b. Indicators of poverty in the community

- The total population is 323 with an average income of PhP 52,198.00 and a per capita income of PhP 13,788.00.
- A total of 237 households have income below the poverty level and 184 households with income below food shortage.
- Households get their non-potable water from existing hand pumps and for potable water from peddlers costing from P8.00 to P10.00 per liter per day.
- Lack of funds limit both the Barangay and Municipal LGUs to address the need for water supply system

c. Specific problems/needs the project aims to address

The existing water source. The spring as water source dried up 8 to year back prompting the residents of Bgy. Antipolo to fetch water from 3 to 5 kilometers every day. There are three (3) existing hand pumps provided by the LGU but one is not working and due to the long cue of pails one household spend 10 to 12 hours to get water for the day's need. Water peddlers sell potable and non-potable water at prices ranging from PhP 8.00 to PhP10.00 per liter.

Within the barangay, groundwater resources are available to households by means of shallow wells. Many of these sources however are tainted with iron to various degrees. Moreover these water sources are either tested as negative and positive of colliform but application of disinfectants make them potable. And those who can afford the cost of water get their drinking water from the poblacion or from the water peddlers.

The community needs to tap a new source that will benefit 180 households or a total of 900 individual beneficiaries at least during the first year. The possible threat to the available water supply from hand pumps will be addressed immediately considering that only a total of 230 households out 323 households have sanitary toilets.

2.1 PREVIOUS/ON-GOING INITIATIVES

a. What have the community stakeholders done to respond to the problem?

- The Municipal LGU has made available a budget in 2004 as requested by the Barangay but to rehabilitate the water system requires much bigger funds. With this proposed project, the Mayor committed to allocate a yearly budget for maintenance sustainability.
- The Engineering Office drew up plans and estimates for a deep well system but no funding support was identified. With the proposed project, the engineering plan will include the technical requirements for Level III component.

b. What has the Project Proponent Undertaken

- Identified project proponent is an agri-based Multi Purpose Cooperative where water project is not a priority. Likewise, it is a DAR-assisted organization where its institutional and organizational inputs are necessary elements for project proponent's potential to operate the proposed project.

3.0 THE PROJECT

3.1 PROJECT NEEDS AND INPUTS

NEEDS & PROBLEMS	EXPECTED PROJECT RESULTS
• Identified potable water site for drilling to replace the non-functioning dried up spring water system • Deep Well drilled and functioning to include: Motor Pump; Pump House; and, power supply connection installed • Old distribution pipes excavated, new distribution pipes in place and tapstands installed • A new water reservoir constructed • A community-based water structure organized and functional in partnership with DAR, the Barangay and the Municipal LGUs as local partners • Transparent involvement of the Level III water system plans formulated by the LGU partners as committed	• An 80 ft. Deep Well drilled in the identified source of potable water supply • A functional deep well in place with: 1. Goulds Submersible Pump Model 25 G.S 50412, 25; 2. 5 HP Franklin Motor 60 HZ, 3450 RPM (complete w/ accessories such as breakers & power supply connections, among others) • Old distribution pipes excavated and new pipelines installed using the HDPE Pipes with sizes 1", 1 1/4" & 2" • A total of 21 Tap Stands installed with appropriate couplings for proper maintenance • A 25,000-liter capacity ferrocement tank constructed following the specs of PEF Engineer • A functional PO/Partner with training inputs from PEF (i.e., Hands-on Demo for Ferrocement and Basic Water Management trainings) • Presence of a formal MOU/MOA with DAR vis-à-vis Institutional and/or Organization inputs/support • Presence of a formal MOU/MOA with LGU Partners (i.e., MPDC & Bgy. Council) vis-à-vis inputs to the water project: 7. Technical and/or Fund support within PEF's project timeframe 8. Technical and/or or Fund support to the cost of maintenance 9. Technical and/or Fund support to cover the cost of Level III water services component

3.2 PROJECT OBJECTIVES

Community/Household Level

BY END OF SIX MONTHS	END OF 1 YEAR
An 80-ft Deep Well will be operational supply the water of 180 households with facilities as: • Pump, Riser Pipes and Power Supply • 25,000 liters reservoir • 1,380 meters of Pipelines and 21 TapStands With available water source, fetching distance is reduced by an average of 3 kilometers and time by an average of 6 hours	Beneficiaries have agreed to pay water tariff formulated by the project Partner and other collaborating LGUs and local partners

PROPONENT/PARTNER LEVEL

BY END OF SIX MONTHS	END OF 1 YEAR
Project Proponent/Partner has acquired Technical and Managerial skills/experience to operate a sustainable water project vis-à-vis utilization of the low-cost ferrocement reservoir Financial system to manage tariffs are in place	Action Plans of LGU counterpart for Level III formulated for installation Project Proponent/Partner has formulated implementing rules and regulation on water tariff.

3.3 CLIENT STRATEGY/PROJECT OUTREACH

(When and how will the project cover the different areas targeted? For example, a new pipeline will be installed to reach the areas by 2006, additional tapstands units will be constructed in each overcrowded sitio, etc.)

PROJECT TIMETABLE

Work Activities	TIMETABLE			
	Mo. 1	Mo. 2	Mo. 3	Mos. 4-6
Pre-operations				
- Skills Training	XXXX			
- Set-up of Procurement & Bids/Awards Com.	XX			
- Processing of Bids & Awards	XX	XXXX	XX	
- Technical Planning		XXXX		
Operations				
- Deep Well Drilling & Installation/const. of access.			XX	
- Ferro Cement Reservoir Construction			XX	
- Excavation/Installation of Pipelines/Tap Stands		XXX	XX	
- Technical Monitoring/Evaluation		XXXXX	XXXXX	XXXXX
Monthly & Cumulative Accomplishment Reports	XXXXX	XXXXX	XXXXX	XXXXX
Post Project Operations				
- Monthly & Cumulative Accomplishment Reports	XXXXX	XXXXX	XXXXX	XXXXX
- Level III Installation				On or After

3.4 PROJECT DESCRIPTION/COMPONENTS

a. Institutional Development

- In consultation with the Proponent's local partners, an in-depth review and assessment of the project shall be held with community residents
- Agreements with the community beneficiaries shall be made reference by the proponent in the decision to accept and enter into a Project Agreement with PEF
- The Proponent's key officers and/or decision makers shall undergo the Basic Water Management Training (i.e., to be identified and scheduled). Among others, the Procurement and Bids & Awards Committees shall set-up to address the pre-construction and construction proper of the project
- In order to appreciate and internalize the Ferro Cement Technology, the key personnel of the Proponent will undertake a Hands-on Demo Training on the Technical/Construction of a model Reservoir
- Negotiations and formulation of formal Project Agreements with the local partners shall be undertaken as follows:

  vi. Barangay and/or LGU vis-à-vis Technical/Financial Inputs c/o Gasan Engineering Office, MPDC & Bgy. Chairman (i.e., in particular Level III component, water treatment re sanitation, etc.)

  vii. DAR vis-à-vis Institutional/Organizational Inputs

b. Capability Building/Client Development

- The Proponent/Partner shall be represented in all meetings of the Barangay Council in matters related to the Water Project for information dissemination to the community
- The project's Schedule of Activities, Timeframe and Needs (i.e., unskilled labor, etc.) shall be posted in the Barangay Hall for transparency
- The actual participation of the beneficiaries in the project shall be emphasized as their opportunities to apply the ferro cement technology in whatever needs of their household it could be applied
- Their acquired skills will be considered for future services re maintenance to water system in general and to the household in particular

c. Technical/Engineering Component

- The option to resort to the Deep Well and integrate the Ferro Cement Technology is to address the water situation in the community and provide services hopefully to the remotest sitios. The option is the only way to replace the dried up spring as there are no other source
- For the proposed project to proceed as planned, the project proponent/partner shall work in close collaboration and/or partnership with PEF, local partners and other resource agencies, donors or institutions
- The bottom line of the proposed project is the support of PEF and the Ferro Cement Technology which could be applied in all applicable way and form it could be made use of

3.5 PROJECT MANAGEMENT

Duties and Responsibilities of Key Officers

Board of Directors (BOD)

- Policy making body and supervise the actual construction
- Conduct quarterly monitoring of the project
- Manage, direct the whole operation and implementation of the project
- Supervise the personnel and beneficiaries during the actual construction of Deep Well, Water Reservoir, Excavation and Installation of pipelines, Installation of TapStands, etc.
- Submit regular report to PEF

Cashier

- Handle all cash transactions
- Purchase necessary materials for the construction of the deep well and other direct materials funded by PEF

Bookkeeper

- Handle all financial recording and books of accounts
- Prepare financial statements and submit to the BOD Chairman
- Perform other functions and duties necessary for the success and sustainability of the project

Direct Community Beneficiaries

- Make available the required labor force (i.e., unskilled labor) in the actual construction in the spirit of "bayanihan"
- Maintain and sustain the project through payment of fees and other contribution to the project
- Coordinate with the proponent and barangay. LGU in matters related to the project

Specific Project Management, Monitoring and Evaluation Schemes

PEF shall prescribe the basic requirements on management, monitoring and evaluation schemes in the Project Agreement to be entered into by the project proponent. However, the existing structure and operating procedures need to be aligned to the water project in consultation with PEF. Moreover, this undertaking should be done in collaboration with the LGUs, DAR/CDA and other local partners.

Financial Management System

Among others, the project proponent shall be required to open a separate bank account for PEF Fund Support. Likewise, it shall make use of its existing accounting system which shall be aligned to the needs of the water project.

4.0 THE PROJECT PROPONENT

4.1 BAYANIHAN LINIS TANIM MULTI PURPOSE COOPERATIVE (BALITA MPC)

4.2 BACKGROUND OF THE ORGANIZATION

VMG

- To encourage thrift and savings mobilization among the members for capital formation
- To create funds and grant loans to member for productive and providential purposes
- To undertake agricultural and/or industrial production purposes
- To engage in the supply of production inputs to members/non-members and market their produce
- To engage in livestock, food, agricultural production/processing, organic fertilizer production, garments making, irrigation, market research and management, etc.
- To do any related activity for the members' self government, improve social and/or economic well being of the people.

Area of operation

- Bgy. Antipolo, Gasan, Marinduque

Number of members

- To date BALITA MPC has a total membership of 56 out of 21 original members
- In addition to availability of potable water, direct benefits of the members is also the availability of water for their crop and livestock production

Projects implemented (Last 2 years)

BALITA MPC was organized in October 20, 2002 with an initial fund of PhP 5,000.00 out of the monthly fees and dues from the members. In 2004 it was able to generate the amount of PhP 30,000.00 as its revolving fund and engage in the following economic activities for the members:

- Credit
- Lease of Agricultural Land for the members to till
- Buy & Sell (i.e., Bottles only)
- Pig Fattening
- Uraro Production
- Butterfly Culture (i.e., individual member)

4.3 TRACK RECORD OF THE PROPONENT

- The BALITA MPC is a young and energetic organization since its creation as reflected in its economic activities, although micro in nature. As such, it reflects the purposes for which it was organized given the limitations in financial resources. Likewise, it passed the test of time from years 2002 to 2005 to be qualified for registration with the CDA to acquire a legal personality which was realized in December 28, 2005 with the Registration No. LGA-6564.
- DAR c/o its MARO and/or DF has a continuing program service for the next 5 years with inputs in the following areas:
  - Education and Training
  - Marketing Tie-ups
  - Resource Mobilization
  - Strengthening of Organization
  - Monitoring and Supervision]
  - Land Tenure Improvement
- From the foregoing economic activities, the BALITA MPC has a total fund balance of PhP 50,651.50. It is worth noting that the proponent has no financial obligation.

5.0 RECOMMENDATIONS

5.1 PEF FINANCIAL SUPPORT – PROJECT COST

BUDGETARY REQUIREMENTS

	PEF	LOCAL COUNTERPART		TOTAL
Line Items	Grant	Proponent	Mun/Bgy	Project Cost
A. Institutional Support				
1. Salaries & Wages				
a. Project Manager/CO		21,000.00		21,000.00
b. Bookkeeper		9,000.00		9,000.00
c. Cashier - 6 mos.		12,000.00		12,000.00
2. Mmgt.Overhead & Operating Expenses				
a. Transportation	12,000.00			12,000.00
b. Communications	12,000.00			12,000.00
c. Supplies	6,000.00			6,000.00
3. Staff Development/COV Training	15,000.00			15,000.00
4. Water Potability Test			10,000.00	10,000.00
	---	---	---	---
Total Institutional Support	45,000.00	42,000.00	10,000.00	97,000.00
	---	---	---	---
B. Client Development				
1. Operation & Maintenance	15,000.00			15,000.00
2. Water Project Development & Mmgt.	15,000.00			15,000.00
3. Financial Management	15,000.00			15,000.00
	---	---	---	---
Total Client Development	45,000.00	0.00	0.00	45,000.00
	---	---	---	---
C. Direct Project Cost				
1. 25,000 liters Ferro Cement Reservoir	78,400.00			78,400.00
2. Tap Stand and Pipeline Installation	481,318.00			481,318.00
3. Water Source Dev't. & Installation of Water Pump				
a. Point Source	59,775.00			59,775.00
b. Pump	146,053.00			146,053.00
4. Installation of Power Supply	84,850.00			84,850.00

	PEF	LOCAL COUNTERPART		TOTAL
5 Unskilled Labor			100,000.00	100,000.00
6 Pump House	40,959.00			40,959.00
7 Engineering, Consultancy & Mgmt. Cost - 6 mos.			60,000.00	60,000.00
8 Level III System/Installation inclusive of:			192,890.00	192,890.00
- Pipe connection c/o Clients			77,875.00	77,875.00
	---	---	---	---
Sub-total	891,355.00	0.00	430,765.00	1,322,120.00
Add: 10% Contingencies & Miscellaneous	89,135.50			89,135.50
Total Direct Project Cost	980,490.50	0.00	430,765.00	1,411,255.50
	---	---	---	---
TOTAL PROJECT COST	1,070,490.50	42,000.00	440,765.00	1,553,255.50
	---	---	---	---
Percentages of Equity Participation	69%	3%	28%	100%

5.2 TERMS AND CONDITIONS OF ASSISTANCE

a. The grant and direct project cost shall be released as follows:

SCHEDULE OF RELEASE	AMOUNT	CONDITION FOR RELEASE
1st release – 50%	535,245.50	PA Agreed & Signed
2nd release – 40%	428,196.25	Accomplishment Report
3rd & final release – 10%	107,048.75	Accomplishment Report
Total – 100%	1,070,490.50	

6.0 RISK ANALYSIS

6.1 What can go wrong with the project?
6.2 What mitigating or preventive mechanisms need to be installed by PEF and the proponent?

ACTIVITIES/ISSUES	IMPACT	MITIGATING MEASURES
• Site cleaning or leveling	Produces areas of bare soil which causes siltation and changes in natural water flow and/or damages to aquatic ecosystem Damages on the ecosystem and terrestrial ecosystem	Minimize disturbance of native flora (vegetation) during construction and minimize the amount of clearing. Clear small areas for active work one at a time Install temporary erosion control features when permanent ones will be delayed. Use erosion control measures. Recover all reasonable materials. Inform communities of the incoming activities and advise workers to possibly limit their noise and dust during the clearing
• Excavation	Causes erosion siltation change and natural water flow and/or damage to aquatic ecosystem because when excavated soil is piled inappropriately Exposes inhabitants and crew to risk of fall and injuries in excavated pits	Designate area for excavated materials Provide place fence around the excavation sites
• Pipe Laying & Pipe Fitting	Causes of minor damage and/or destruction of some plants	Install the pipes in appropriate places to minimize the destruction of plants and other inhabitants
• Diversion of water flow from Source	Cause of lowering the water levels in nearby areas	Limit the use of the water from the source ranging from 50%-80%
• Participation of local Partners	Project failure and/or discontinued operations	Ensure a formal project agreement with the local partners through MOUs and MOAs

7.0 DOCUMENTS CHECK LIST

7.1 ORGANIZATION-RELATED DOCUMENTS

- Copy of SEC/PCNC/CDA Registration
- Copy of Proponent's Articles of Incorporation and By-Laws
- Audited Financial Statements of Proponent for the last two years
- Notarized Board Resolution indicating the requested assistance from PEF and naming at least two authorized representatives who will sign all documents pertaining to the project
- Curriculum Vitae of the officers and management staff of the organization

7.2 PROJECT-RELATED DOCUMENTS

- Location map showing project sites/areas
- Detailed financial schedules of proposed budget (including notes and assumptions)

Aside from the Project Proposal itself, the following should be submitted:
(These documents SHALL be provided by the proponent).

7.3 ORGANIZATION-RELATED DOCUMENTS

- Copy of SEC/PCNC/CDA Registration
- Copy of Proponent's Articles of Incorporation and By-Laws
- Audited Financial Statements of Proponent for the last two years
- Notarized Board Resolution indicating the requested assistance from PEF and naming at least two authorized representatives who will sign all documents pertaining to the project
- Curriculum Vitae of the officers and management staff of the organization

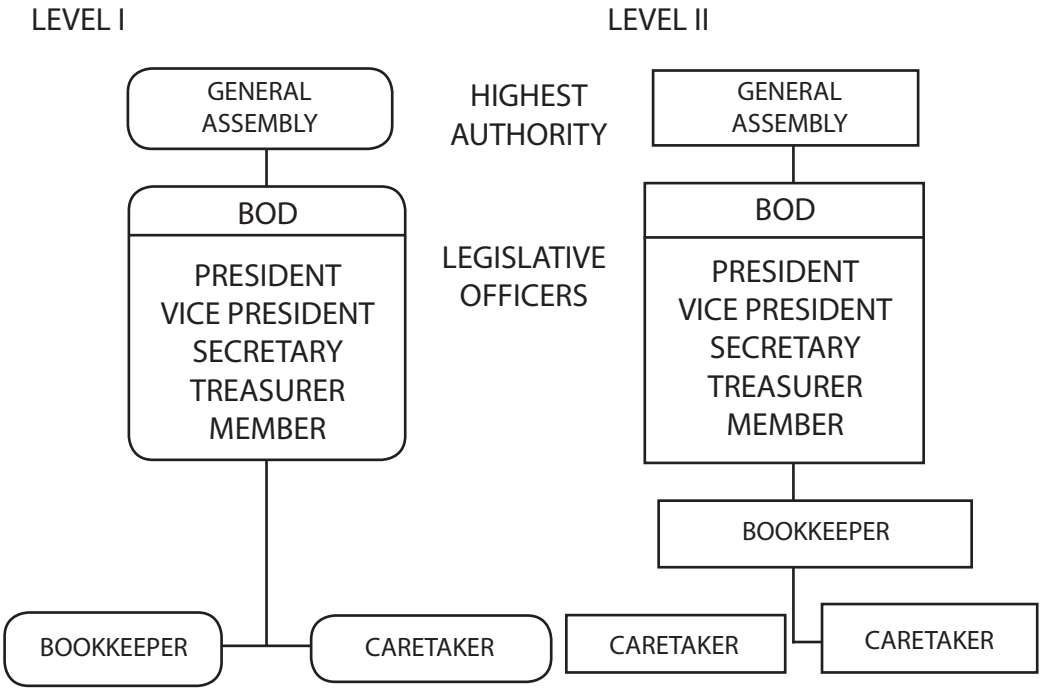
7.4 PROJECT-RELATED DOCUMENTS

- Location map showing project sites/areas
- Detailed financial schedules of proposed budget (including notes and assumptions)

7.5 PROJECT-SPECIFIC DOCUMENTS

- Business Plan (if project is an enterprise)
- Guidelines for Revolving Credit Funds (if applicable)
- Documents showing proof of approved funding (if the project will use counterpart funds from other donors)
- Plan, drawings, specifications for infrastructure, machinery and equipment, etc. (if applicable)
- Training Design (if applicable)

SECTION 2.8A
ORGANIZATIONAL STRUCTURE OF A WATER ASSOCIATION



SECTION 2.8B
SAMPLE ORGANIZATIONAL STRUCTURE OF A COMMUNITY WATER ASSOCIATION

MANGOOL ACTIVE MOTHERS' ASSOCIATION (MAMA) WATER SYSTEM PROJECT

Custodian Committee
- Chair
- Members

Project In-charge
- Chair
- Members

Marketing In-charge
- Chair
- Members

Collectors
Meter Reader
Plumber (on call)
Pump Tender
System Manager
Treasurer

SECTION 2.9
SAMPLE WATER ASSOCIATION POLICIES

MAMA GENERAL POLICIES AND COMMON TAPSTAND POLICIES

1. Every tapstand shall pay a registration fee of PhP25 to MAMA.
2. Every tapstand will collect a membership fee of PhP10 for each member of the tapstand.
3. There will be a monthly regular meeting and cleaning of the surroundings of each tapstand.
4. Any member who will not attend the meeting or participate in the activities of each tapstand will be asked to report to the group for the 1st and 2nd times that the member does it. The group will be forced to evict that member if s/he will do it for the 3rd time.
5. A renewal fee of PhP50 is asked of evicted members who like to renew his/her membership. The renewing member is also asked to sign a written statement stating that he/she will follow all policies of the group.
6. A member who has renewed his/her membership for three times will not be accepted by any tapstand. He/she will be allowed to buy water in any tapstand but he/she has to pay double for the price of the water.
7. Each tapstand leader, checker and treasurer shall submit a report to their members during their regular meeting. They will also attend and submit a report to MAMA during the BOD meeting on each 3rd Saturday of every month.
8. A credit limit of PhP10 every week is allowed to members who want to draw water on credit. All amount due, even if less than PhP10, shall be paid every Sunday.
9. Outsiders are not allowed to draw water on credit.
10. Each tapstand group shall pay a monthly water service fee of PhP20 per cubic meter to MAMA. Amount of payment will depend on how many cubic meters are used by each tapstand group.
11. Each tapstand group is responsible for the cost of replacement of any gadget or equipment for water service (like water meter, faucet, etc.) that broke down in their own tapstand.
12. MAMA is responsible for the cost of repair or replacement of the mother meter and other major repairs to the pipelines.
13. MAMA has a regular plumber who does the major repairs of the equipment and pipelines. He is on call and will service the (tapstand) groups when needed.
14. Any member of official of any tapstand who does damage to any equipment of the water facility and/or
15. Any person who does damage to the water facility, its equipment and gadgets will be penalized and fined for PhP500 over and above the payment for the cost of replacing the equipment/gadget he/she has damaged.

    MAMA will be forced to file a case to that person if he/she will not pay the fine and cost of replacement.
16. Each tapstand groups should adopt this "MAMA General Policies and Common Tapstand Policies."

Tapstand No. 1 Policies

1. The tapstand leader will hold the key to the tapstand
2. The faucet of the tapstand will only be open once a day from _____ to _____
3. A reading of the water meter will be done before and after opening the tapstand faucet to have daily water consumption record.
4. The checker will record the daily meter readings.
5. Each tapstand member shall submit a list of his/her family members to the treasurer or checker of the tapstand.
6. Each member shall sign in the notebook of the checker every time he/she draws water to signify that he/she has drawn water.
7. The 5-gallon container is the unit of measure for the tapstand in drawing water.
8. Each container will cost PhP0.50 to members who pay in cash and PhP1.00 for those who will draw on credit. Non-members shall pay PhP1.00 per gallon and will not be extended credit. MAMA's general policy shall be followed.
9. A 10% of the net income of every month will be given to the checker as honorarium. He/she will be paid in cash.
10. The daily cash collection of the checker will be collected by the collector who, in turn, will remit the money to the treasurer of the tapstand.
11. The tapstand leader will supervise and check whether the payment/collection tallies with water consumption for the day.
12. Any member who does not follow the policy of the tapstand group will not be allowed to draw water from the tapstand.
13. Each member of the tapstand shall sign the document stating that he/she is a member of the tapstand group.
14. There will be a monthly meeting on the 23rd of every month to inform the group of the income, progress of the group and to address problems which occurred in the specific month.
15. In the event that many of the members need to draw water at the same time, each member is only allowed to fill in two containers at a time.
16. Only a 5-gallon container is allowed to be used when drawing water from the tapstand.
17. Washing, bathing and pasturing animals near the tapstand will be prohibited.

SECTION 2.10
PROGRESS NARRATIVE AND FINANCIAL REPORT FORMAT (NAME OF PEF PARTNER)

PROJECT STATUS REPORT

FOR THE PERIOD _____ TO _____, 200____

I. IDENTIFYING INFORMATION

Reference No. :
Project Title :
Project Site :
Project Type :
Target Beneficiaries :
Project Completion Date :
Partner Address/Tel. No. :
Peace Foundation Assistance :
    Approved :
    Released :
Counterpart Contribution :

II. EXECUTIVE SUMMARY

Present a summary assessment of the project after the period of implementation. This includes an over-all assessment of the project in relation to accomplishment of objectives, funds usage and compliance with the Terms and Conditions attached to the project. It should also include the primary benefits that the target beneficiaries gained from the project.

III. ACCOMPLISHMENT OF PROJECT OBJECTIVES

Present a detailed assessment of the actual accomplishment of project outputs, objectives and/or deliverables. This section should include the following:

1) What are the different target outputs/objectives/deliverables of the project? (Proponents should refer to the project agreement and other official documents.)
2) How much of the target outputs/objectives/deliverables did the project achieve? (Proponents should be as specific as possible.)
3) What are the reasons for such level of accomplishment? (Proponent should explain why it was able to achieve or not able to achieve the target outputs.)
4) What needs to be done? (Proponent should identify the next steps in order to improve project performance.)

OBJECTIVES AND MAJOR DELIVERABLES (please refer to Annex C of the Project Agreement)	ACTIVITIES CONDUCTED	ACTUAL ACCOMPLISHMENTS	PROBLEMS ENCOUNTERED/ ACTION TAKEN/TO BE TAKEN

IV. STATUS OF PROJECT FINANCES

Present a detailed financial assessment with explanation for the variances. This section should include the following:

(1) PEF loan and grant fund utilization (Was the financial assistance used for the purpose it was approved or according to the approved budget per item? Why or why not?)

(2) Counterpart Contribution (Was the PEF Partner able to raise and use its target counterpart? Why or why not?)

(3) Loan Payments to PEF (If applicable, was the PEF Partner able to pay its loan obligations to PEF? And how much?)

(4) Financial Performance of Project (If applicable, is the project able to post a net income? Why or why not?)

V. PROBLEMS ENCOUNTERED AND ACTION TAKEN

Present a summary listing of the problems encountered in project implementation identified in Items III and IV. For each and every identified problem, what action was taken?

VI. APPENDIX

a. Project Accomplishment Report
b. Expenditure and Budget Performance Report
c. Counterpart Contribution Report
d. Updated Financial Statements
    1. Balance Sheet
    2. Income Statement
    3. Cash Flow Statement

Prepared by:
Name: _____
Position: _____
Date: _____

Approved by:
Name: _____
Position: _____
Date: _____

(NAME OF PEF PARTNER)
(PROJECT TITLE)
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN FUND BALANCE
_____200_____

(Note: Partner may use another income statement format accepted in accounting practice)

INCOME	
SALES	P xxxxx
COST OF GOODS SOLD	xxxx
GROSS MARGIN	xxxxx
OTHER OPERATING INCOME	xxx
GROSS OPERATING INCOME	P xxxxx
EXPENSES	
Salaries	P xxx
Repairs and Maintenance	xxx
Office and General Expenses	xxx
Total Expenses	P xxxx
NET INCOME	P xxx
FUND BALANCE BEGINNING	xxx
FUND BALANCE ENDING	P xxxx

Prepared by:

Name: _____ Name: _____

Position: _____ Position: _____

Date: _____ Date: _____

(NAME OF PEF PARTNER)
(PROJECT TITLE)
STATEMENT OF ASSETS, LIABILITIES AND FUND BALANCES
_____200_____

(Note: Partner may use another balance sheet format accepted in accounting practice)

ASSETS	
Current Assets	
Cash on Hand	P xxxxx
Cash in Bank	xxxxx
Petty Cash	xxxxx
Accounts Receivable	
Advances to Officers and Employees	
Materials and Supplies Inventory	
Other Current Assets _____	
Total Current Assets	P xxxxx
Property, Plant and Equipment	
Equipment xxxxx	
Less: Accumulated Depreciation xxx	
Other Assets _____	
TOTAL ASSETS	P xxxxxx
LIABILITES AND FUND BALANCES	
Current Liabilities	
Accounts Payable	P xxxxx
Loans Payable	xxxxx
Accrued Expenses	xxxxx
SSS and Medicare Payable	xxxxx
Withholding Tax Payable	xxxxx
Other Current Liabilities _____	
Total Current Liabilities	P xxxxx
Fund Balances	
Beginning Balance	xxxxx
Add: Net Income (Loss) for the period xxxx	
Ending Balance	P xxxxx
TOTAL LIABILITIES AND FUND BALANCES	P xxxxx

Prepared by:	Approved by:
Name: _____	Name: _____
Position: _____	Position: _____
Date: _____	Date: _____

(NAME OF PEF PARTNER)
(PROJECT TITLE)
CASH FLOW STATEMENT
_____200_____

(Note: Partner may use another cash flow statement format accepted in accounting practice)

Cash Flows from Operating Activities		
Net (Loss)		P (xxxxx)
Depreciation		xxxxx
Increase in Accounts Receivable		(xxxxx)
Decrease in Prepaid Expenses		xxxxx
Increase in Accounts Payable	xxxxx	P xxxx
Cash Flows from Investing Activities		
Purchase of Transport Equipment	(xxxxx)	xxxx
Cash Flows from Financing Activities		
Proceeds from Trading Loan		xxxxx
Proceeds from Production Loan	xxxxx	xxxx
Increase (Decrease in Cash)		xxxx
Add Cash Balance, Beginning		xxxx
Cash Balance, End		P xxxxx

Prepared by:

Name: _____
Position: _____
Date: _____

Approved by:

Name: _____
Position:_____
Date: _____

SECTION 2.11 PROJECT ACCOMPLISHMENT REPORT FORMAT

(NAME OF PEF PARTNER) (PROJECT TITLE)

PERIOD COVERED: _____

PROJECT EFFECTIVITY DATE:				
PROJECT COMPLETION DATE:				
PROJECT OUTPUTS OR DELIVERABLES (please refer to section 1.2 of Project Agreement)	PLANNED ACTIVITIES	ACTUAL ACTIVITIES	ACTUAL OUTPUTS FOR THE PERIOD	PROBLEMS ENCOUNTERED/ ACTION TAKEN/TO BE TAKEN
Prepared by:		Approved by:		
Name: _____ Position: _____ Date: _____		Name: _____ Position: _____ Date: _____		

(NAME OF PEF PARTNER)
(PROJECT TITLE)
PEF FUND ASSISTANCE
EXPENDITURE AND BUDGET PERFORMANCE REPORT
PERIOD COVERED:_____

PROJECT EFFECTIVITY DATE:							
PROJECT COMPLETION DATE:							
			DISBURSEMENTS				
BUDGET ITEM	APPROVED BUDGET	FUNDS RECEIVED	PRIOR PERIOD	THIS PERIOD	TOTAL	UNEXPENDED FUNDS(DEFICIT)	BUDGET BALANCE
	(a)	(b)	©	(d)	(e = c + d)	(f = b - e)	(g = a - b)
TOTAL							

We, the undersigned, hereby certify that (1) the expenditures claimed are proper and due and appropriate refund to the Peace and Equity Foundation (PEF) will be made promptly upon the request of PEF in the event of non-performance, in whole or in part, of the terms and conditions of the project agreement; (2) the information on this report is correct and such detailed supporting information as PEF may require will be furnished as soon as possible; and (3) all requirements called for by the project agreement to date of this certification have been met.

CERTIFIED CORRECT:

Authorized Signatories

Name: _____ Name: _____
Position: _____ Position: _____
Date: _____ Date: _____

(NAME OF PARTNER)
(PROJECT TITLE)
COUNTERPART CONTRIBUTION
EXPENDITURE AND BUDGET PERFORMANCE REPORT
PERIOD COVERED:_____

PROJECT EFFECTIVITY DATE:								
PROJECT COMPLETION DATE:								
	EXPENDITURES							
BUDGET ITEM	APPROVED BUDGET	PRIOR PERIOD CASH	IN-KIND	THIS PERIOD CASH	IN-KIND	CUMULATIVE TOTAL CASH	IN KIND	AVAILABLE BUDGET
TOTAL								

CERTIFIED CORRECT:
Authorized Signatories

Name:_____ Name: _____
Position: _____ Position: _____
Date:_____ Date: _____

SECTION 2.12
POTABLE WATER PROJECT MONITORING REPORT

1.0 IDENTIFYING INFORMATION

1.1 Project Title	:	Barangay _____ Piped-Water System, Level II
1.2 Project Site	:	Barangay
1.3 Beneficiary Group	:	People's Organization
1.4 Proponent	:	NGO or PO
1.5 Project Type	:	Water
1.6 Proponent Type	:	
1.7 Date of Visit	:	
1.8 Attendance	:	Barangay Council Officials and Water Association Officers and Members

2.0 STATUS AND FINDINGS

2.1 General Assessment

Components	Activities/Developments/Accomplishments	Deficiencies/Variations	Restraining Factors
a. Implementation			
Community Organizing			

Components	Activities/Developments/Accomplishments	Deficiencies/Variations	Restraining Factors
Engineering/ Construction Capability-building Finandicial			

Components	Activities/Developments/Accomplishments	Deficiencies/Variations	Restraining Factors
b. Organizational-Administrative			
c. System Management and Operations			
d. Financial			

2.2 Issues and Resolutions:

Concerns/Issues	Resolutions
a. Community Organizing	
d. Engineering	
c. Capability-Building	
d. Financial	

2.3 Recommended Action Plan

Target Activities	Time/Period/Duration	Required Resources	Responsible	Status
a. Community Organizing				
b. Engineering				
c. Capability-Building				
d. Financial				

Note: Filled out together with project beneficiaries and proponent(s) relative to PEF timetable and conditions, if PEF funds are involved.

1.0 ATTACHMENTS
(Engineering Plans and Maps; Action Plans; Legal Documents; Financial, Engineering and Training Reports)

SECTION 2.13A
SAMPLE TERMINAL NARRATIVE REPORT FORMAT
(NAME OF PEF PARTNER) TERMINAL REPORT, (DATE SUBMITTED)

I. IDENTIFYING INFORMATION

Reference No. :
Project Title :
Project Site :
Project Type :
Target Beneficiaries :
Project Completion Date :
Partner Address/Tel. No. :
Peace Foundation Assistance :
Approved :
Released :
Counterpart Contribution :

II. EXECUTIVE SUMMARY

Present a summary assessment of the project after the period of implementation. This includes an over-all assessment of the project in relation to accomplishment of objectives, funds usage and compliance with the Terms and Conditions attached to the project. It should also include the primary benefits that the target beneficiaries gained from the project.

III. ACCOMPLISHMENT OF PROJECT OBJECTIVES

Present a detailed assessment of the actual accomplishment of project outputs, objectives and/or deliverables. This section should include the following:

(1) What are the different target outputs/objectives/deliverables of the project? (Proponents should refer to the project agreement and other official documents.)

(2) How much of the target outputs/objectives/deliverables did the project achieve? (Proponents should be as specific as possible.)

(3) What are the reasons for such level of accomplishment? (Proponent should explain why it was able to achieve or not able to achieve the target outputs?).

OBJECTIVES AND MAJOR DELIVERABLES (please refer to Annex C of the Project Agreement)	ACTIVITIES CONDUCTED	ACTUAL ACCOMPLISHMENTS	PROBLEMS ENCOUNTERED/ ACTION TAKEN/TO BE TAKEN

IV. STATUS OF PROJECT FINANCES

Present a detailed financial performance with explanation for the variances. This section should include the following:

(1) PEF loan and grant fund utilization (Was the financial assistance used for the purpose it was approved or according to the approved budget per item? Why or why not?)

(2) Counterpart Contribution (Was the PEF Partner able to raise and use its target counterpart? Why or why not?)

(3) Loan Payments to PEF (If applicable, was the PEF Partner able to pay its loan obligations to PEF? And how much?

(4) Financial Performance of Project (If applicable, is the project able to post a net income? Why or why not?)

V. PROBLEMS ENCOUNTERED AND ACTION TAKEN

Present a summary listing of the problems encountered in project implementation identified in Items III and IV. For each and every identified problem, what action was taken?

VI. LESSON AND INSIGHTS GAINED

Present the key lessons and insights gained regarding:

a. Project Implementation (Based on your experience, are there areas or concerns regarding project implementation that could further be improved?)
b. Relationship with PEF (How would you assess your organization's relationship with PEF? Are there concerns that PEF need to address to improve the relationship?)
c. Beneficiaries (How would you assess the participation of the beneficiaries in the project? What factors helped or hindered the beneficiaries to fully benefit in the project?)
d. Others (Please specify.)

VII. APPENDIX

a. Expenditure and Budget Performance Report
b. Counterpart Contribution Report

Prepared by:
Name: _____
Position: _____
Date: _____

Approved by:
Name:_____
Position:_____
Date:_____

SECTION 2.13B: TERMINAL FINANCIAL REPORT

(NAME OF PEF PARTNER)
(PROJECT TITLE)
PEF FUND ASSISTANCE
EXPENDITURE AND BUDGET PERFORMANCE REPORT
PERIOD COVERED:_____

PROJECT EFFECTIVITY DATE:							
PROJECT COMPLETION DATE:							
			DISBURSEMENTS				
BUDGET ITEM	APPROVED BUDGET	FUNDS RECEIVED	PRIOR PERIOD	THIS PERIOD	TOTAL	UNEXPENDED FUNDS(DEFICIT)	BUDGET BALANCE
	(a)	(b)	©	(d)	(e = c + d)	(f = b - e)	(g = a - b)
TOTAL							

We, the undersigned, hereby certify that (1) the expenditures claimed are proper and due and appropriate refund to the Peace and Equity Foundation (PEF) will be made promptly upon the request of PEF in the event of non-performance, in whole or in part, of the terms and conditions of the project agreement; (2) the information on this report is correct and such detailed supporting information as PEF may require will be furnished as soon as possible; and (3) all requirements called for by the project agreement to date of this certification have been met.

CERTIFIED CORRECT:
Authorized Signatories

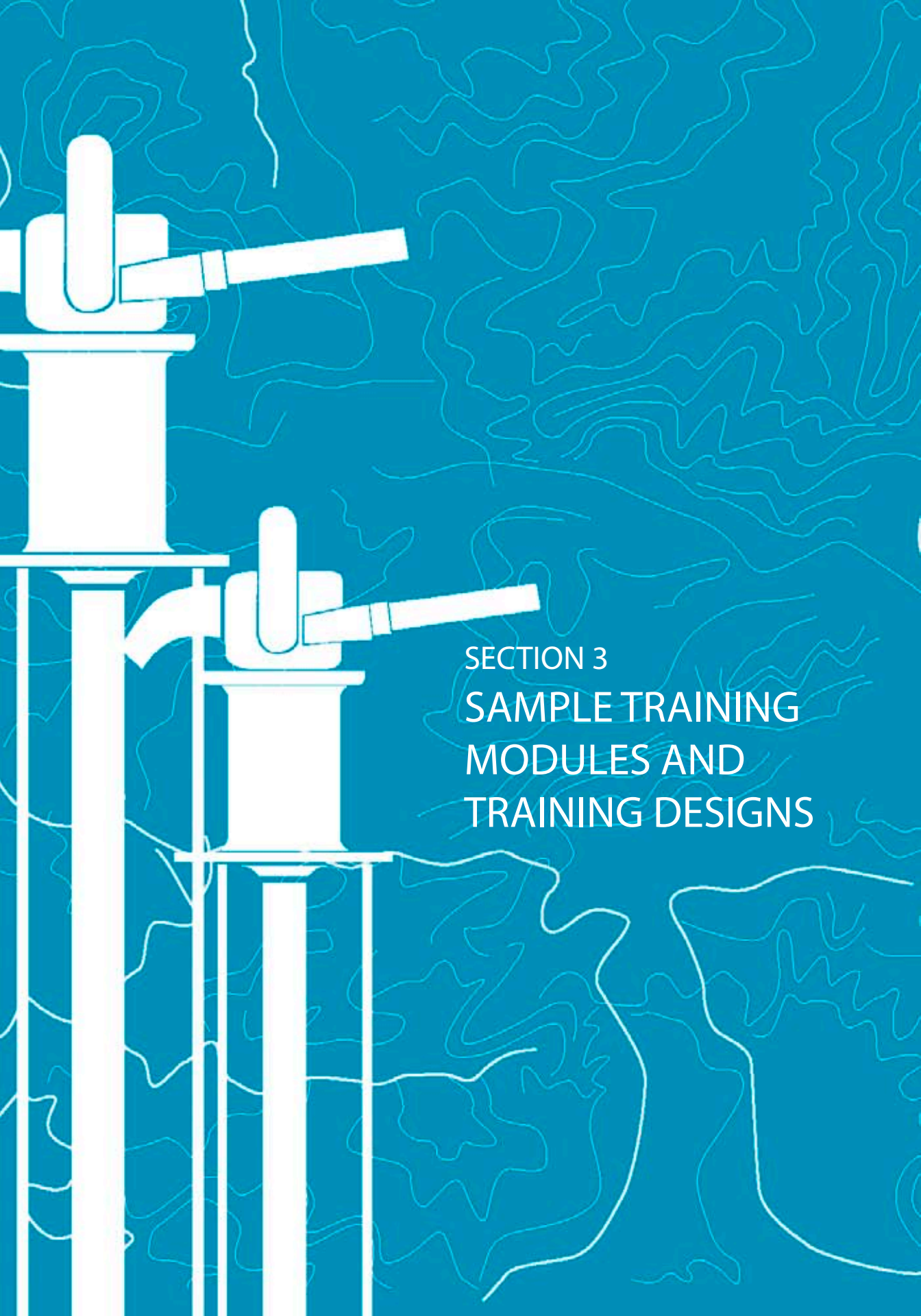
Name:_____ Name:_____
Position: _____ Position: _____
Date:_____ Date:_____

(NAME OF PARTNER)
(PROJECT TITLE)
COUNTERPART CONTRIBUTION
EXPENDITURE AND BUDGET PERFORMANCE TERMINAL REPORT
PERIOD COVERED:_____

PROJECT EFFECTIVITY DATE:								
PROJECT COMPLETION DATE:								
	EXPENDITURES							
BUDGET ITEM	APPROVED	PRIOR PERIOD		THIS PERIOD		CUMULATIVE TOTAL		AVAILABLE
	BUDGET	CASH	IN-KIND	CASH	IN-KIND	CASH	IN KIND	BUDGET
TOTAL								

CERTIFIED CORRECT:
Authorized Signatories

Name: _____ Name: _____
Position: _____ Position: _____
Date: _____ Date: _____



SECTION 3

SAMPLE TRAINING MODULES AND TRAINING DESIGNS

SECTION 3.1
SAMPLE TRAINING MODULE
ON FERROCEMENT TANK CONSTRUCTION

FROM THE TRAINING DOCUMENTATION OF PEF-VISAYAS AS FACILITATED BY ENGR. PETRONILO MURING FROM THE MODULE PROVIDED BY ENGINEER BHING LEONICO REVIEWED BY ENGR. JUN ORCA

Training objective

- Construct two (2) water tanks measuring 1.5 cu.m. each using ferrocement technology

Target participants

- Engineers, community leaders

Possible resource speakers

- Engr. Muring, Engr. Leonico, Engr. Virgilio Orca Jr., Engr. Carmelo Gendrano and other senior consultant-engineers of PEF

Materials needed

- Construction materials and tools
- Visual aids (PowerPoint presentation, etc.)

Program content

Topic 1 – Introduction to water tanks
Topic 2 – Tank appurtenances and layouts
Topic 3 – Introduction to ferrocement technology
Topic 4 – Use of ferrocement tanks as rainwater roof catchment systems (RRCS)
Topic 5 – Operation and maintenance
Topic 6 – Tank sizing
Topic 7 – Water treatment

Duration

- Five days

DAY 1

Introductions

Facilitator presents the flow of the five-day training.

S/he introduces the other facilitators and/or lecturers.

Participants introduce themselves and share their expectations on training content, process and speakers.

Facilitator introduces the first topic.

Topic 1. Introduction to water tanks

Input

1. Functions/uses of water tanks:
   a. Collection and storage - for everyday use
   b. Reservoir (reserve) - for emergency (fire, etc)
   c. Equalizer (pressure breaker) - reduce pressure
   d. Source
   e. Pressure

2. Forms/shapes of tanks:
    a. Cubical
    b. Cylindrical - for tanks beyond 12 ft.
    c. Jar
    d. Spherical - for tank that is 12 ft. and below
    e. Rectangular prism

3. Materials used for water tanks
    a. Concrete
        - Sand
        - Gravel
        - Water
        - Cement
        - Sahara

    b. Reinforced concrete
        - Concrete
        - Tie wires
        - Reinforcement bars

    c. Plastic
    d. Metal
    e. Rubber
    f. Wood

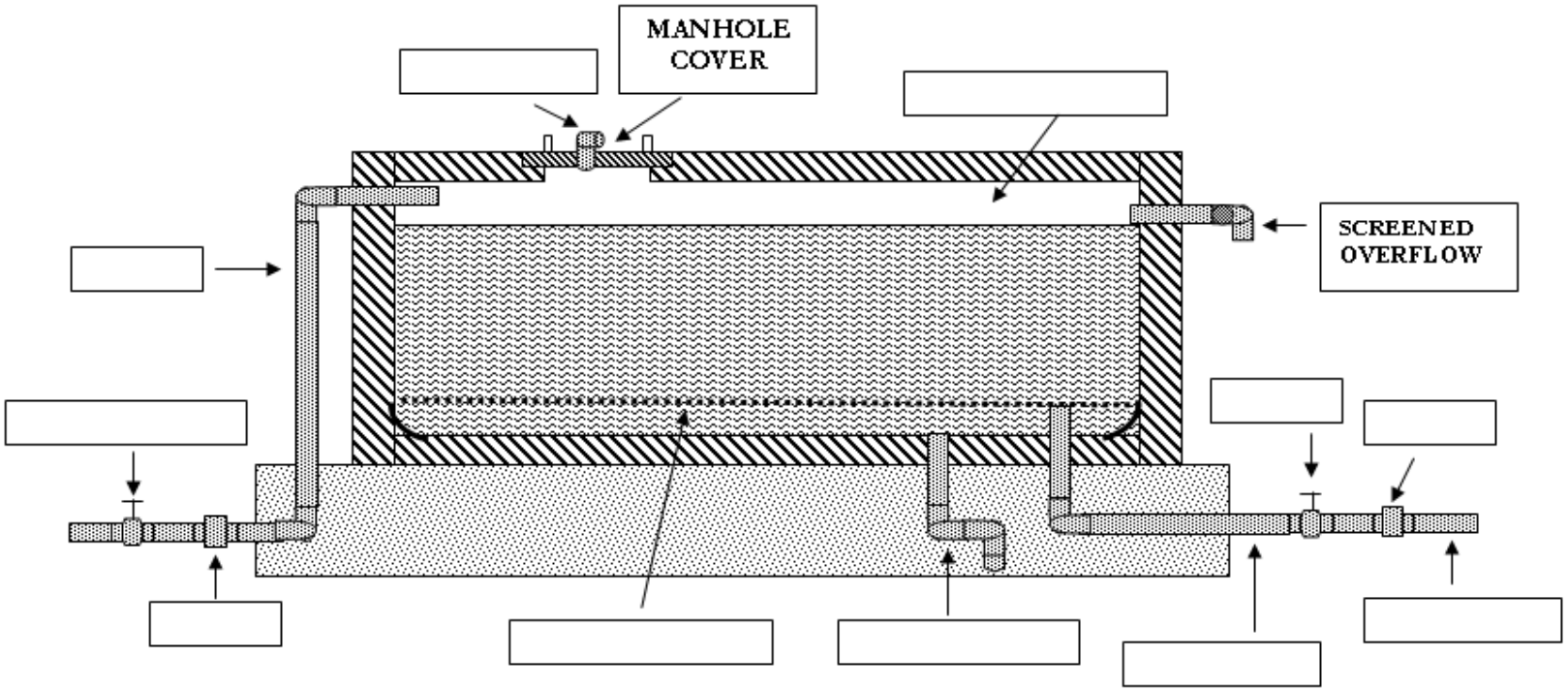
    g. Mortar (mixture of mortar- 1:2 , 1 cement; 2 sand)
        - Fine sand
        - Cement
        - Water
        - Gravel/stones (foundation)
        - Tie wires
        - Mesh wires or chicken wires or hog wires or cyclone/interlink

    h. CHB (concrete hollow blocks)

The facilitator proceeds to the second topic. S/he presents the parts, layout and features of tanks.

Topic 2: Tank appurtenances (parts) and layouts

TANK APPURTENANCES



Input: Water tank features and specifications

A well-designed tank must have the following appurtenances (parts and features):

• Inlet pipe	• Overflow line
• Outlet pipe	• Air vent (optional)
• Drain pipe	• Manhole and cover

Appurtenances	*Material Used*	*Provisions*
1. Inlet pipe	GI nipple, rubber strip and steel bar	Should be rigidly embedded in tank wall. To prevent rotation and leakage, install welded anchor lug at mid-length with a rubber strip to facilitate water-tightness. Should be installed as high as possible to maximize effective height.
2. Outlet pipe	GI nipple	Same provisions as inlet pipe. Usually installed 5–10 cm above finished floor level and screened with mesh wire (secure with hose clamp)
3. Drain pipe	GI nipple, G.I. elbows, G.I. coupling, G.I. cap, PVC male adaptor	Should be installed at lowest point of finished floor level. Wrap nipple with rubber strip to make water-tight.
4. Overflow pipe	GI nipple with 90^0 elbow	Same provisions as inlet pipe. Should be installed below lowest point of inlet pipe with an outward slope. Install elbow on interior end of nipples and screen with mesh wire.
5. Air vent	GI nipple with 90^0 elbow and 90^0 St. elbow	Install only if overflow is insufficient to function as vent/overflow. Should extend 20 cm above cover slab level to prevent entry of rainwater. Screen with mesh wire on interior end of nipple.
6. Manhole/cover	Concrete or steel plate	Should be slightly raised above roof level. Must be equipped with a lip and overlaying cover. Should also be provided with a lock.
7. Tapstand (Level I)	GI nipples, GI elbows, GI coupling, faucet	Should be installed at least 50 cm above finished splash pad level (only for Level I or special access)

Topic 3: Introduction to ferrocement technology

Facilitator presents the attributes of ferrocement technology.

POSITIVE ATTRIBUTES	NEGATIVE ATTRIBUTES
1. Thin walling 2. Cheap 3. Easy to construct 4. Faster to make 5. Simple materials 6. Light 7. Resistant	1. Painstaking 2. Requires clean and fine sand 3. Needs constant watering 4. Requires skilled mason 5. Needs shade during construction

A. Method of mixture application
- Same as plastering
- 3 layers (coatings) of finishing
- The mixture must stick on the mesh wire.
- The mixture must be fine, not grainy.
- To ensure a smooth finish, constant watering and polishing using foam are needed.
- Can be done with pro-forma/cast/mold; reusable and removable pro-forma
- Can be done without pro-forma/cast/mold; but with one side that has pro-forma
- Application shall start with the base, then move upwards, using upward strokes.

B. Ferrocement tank construction requirements

1. Tools needed
   a. Float or *palita*
   b. Shovel or *pala*
   c. Pliers or *plais*
   d. Hawk or *rodela*
   e. Foam pads
   f. Hacksaw or *lagaring pang-bakal*
   g. Handsaw or *lagari*
   h. Hammer or *martilyo*
   i. Steel tape or *metro*
   j. Level or *tonton*

2. Materials needed
   a. Aggregates
      - fine washed sand
      - cement
      - clean water

   b. Reinforcement
      - Reinforcement bars
      - Hog wire
      - Mesh wire
      - Chicken wire
      - Interlink
      - Tie wires

   c. Forms and scaffoldings

3. Procedure for construction
    a. Prepare all materials and tools.
    b. Prepare forms and scaffoldings (make sure that the interlinks are tight).
        - tank body
        - tank cover
        - manhole cover
        - temporary framework for construction
    c. Site layout and preparation
    d. Construct shed for the tank.
    e. Construct foundation and pedestal.
        - excavation
        - piling of rocks/stones with concrete mixture
        - filling and compacting of foundation
    f. Preparing matting form
    g. Installing matting and pipes
        - interlock pipes with the matting
    h. Mounting tank form (interlinks) to the pedestal
        - interlock tank form with the matting
    i. Rough concreting of floor
    j. Preparing mortar mixture
        - 1 part cement : 2 parts sand
    k. Plastering of tank body
        - 1-inch thick at both sides of tank (inner & outer)
    l. Plastering of tank cover and manhole cover
    m. Mounting and interlocking of tank cover to the tank body
    n. Plastering of joints
    o. Application of cement slurry coating to both sides of the walls, cover and manhole
    p. Finishing touches on the plumbing and structure
    q. Curing
        - Wetting three times a day for two weeks
    r. Break-in
        - Gradualy fill the tank. Start to fill one day after completion.
        - Add 1 foot deep after completion.
        - Add 1 foot deep after five days.
        - Add 1 foot deep daily thereafter.

Facilitator lets his/her participants view visuals of typical ferrocement tanks, then presents photos showing how to make ferrocement tanks.

Facilitator proceeds to his/her input on water tank selection and excavation.

Input: Water tank site selection and excavation

1. **Site selection**

   The location of the water tank must be strategic with regard to distance from the service area, available head, and accessibility for maintenance and land ownership.

   The water tank should be located on a stable site not affected by landslides or erosion. Ideally, the site should allow for foundation work and be set on bedrock, but in many cases the foundation must be designed to compensate for unsuitable soil types.

   A site should be selected to allow for proper drainage of wastewater. Location of overflow and drain pipes should be planned in conjunction with appropriate drainage and canal structure.

   The site should be level or nearly level to minimize excavation. Where unavoidable, deep excavations must allow for at least 40 cm of wall clearance above the ground surface on all sides.

2. **Excavation**

   Depth of excavation will depend on the nature of the soil at the site. Excavation should be made to stable subsoil—preferably rock.

   All excavations should be tamped to ensure maximum compaction of subsoil and to minimize possible settling.

   Sloping sites require deeper excavations and should be provided with deep foundation trenches to ensure firm embedment of the foundation structure and may require retaining wall structures.

3. **Foundation**

   For ground level water tanks, there are two foundation types: (1) massive foundation (for whole tank) and (2) wall foundation (including wall footings).

   A massive foundation is appropriate when a water tank is designed for use as point source (with faucets). In this case, the tank should be raised 0.4 m above the ground surface. These foundations are usually constructed with rip-rap using large stones and class-C mortar.

   A wall foundation is appropriate for large tanks, especially those with high walls and for sites with weak soils. The wall footing should extend a minimum of 0.5 m below the ground surface with a minimum width of 0.5 m.

   All foundations should include a tamped gravel base. The thickness of the base depends on the tank size, usually varying from 5–10 cm.

4. **Finish grade**

   Proper site layout and finish grading for ground level water tanks should prevent the accumulation of stagnant water and direct surface runoff away from tank foundation. Hill slopes in the vicinity of the tank structure should be stabilized against erosion.

Participants are divided into two groups for the hands-on training.

The two groups are asked to go to their respective sites and prepare the foundations of the tanks, tamp, and gravel base.

Facilitator reminds participants to plan the layout of their respective tanks, particularly the piping, before going to the sites.

DAY 2

Each group is asked to present their planned layout of the tank.

The groups then move to their respective sites for the actual construction of ferrocement tanks.

Participants spend the whole afternoon in the construction site.

DAY 3

Topic 4: Use of ferrocement tanks as rainwater roof catchment systems (RRCS)

Facilitator shows participants diagrams and illustrations on the use of ferrocement tanks as rainwater roof catchment systems. S/He then presents the advantages and disadvantages of RRCS. The facilitator emphasizes that the kind of roof affects the quality of water.

Input: Advantages and disadvantages of rainwater roof catchment system for domestic supply

ADVANTAGES	DISADVANTAGES
1. Convenience 2. Good maintenance 3. Low running costs 4. Relatively good water quality 5. Low environment impact 6. Existing supply 7. Simple construction 8. Flexible technology	1. High initial cost 2. Limited supply 3. Expensive 4. Unattractive to policy makers

Topic 5: Operation and Maintenance

Facilitator runs through the matrix of operations and maintenance requirements of RRCS.

Component	*Functions*	*Problem/s*		*Remedy*	*Recommendation*
		Causes	*Effects*		
Depository tank compartment	Impound water supply for distribution	Non-cleaning of compartment	Water contamination	Immediate cleaning and water treatment	Undertake periodic cleaning and maintenance.
		Unaddressed leakages	Water supply wasted and the tank emptied	Repair of all leakages	Undertake periodic repair and maintenance.
Control valve with valve cover	To regulate water flows	No protective cover, low quality, easily damaged or improper use	Non-filling of reservoir and no water flow along pipe	Immediate repair to avoid waste of water supply	Control valve installed must be heavy duty and must have protective cover.
Overflow pipe with screen	Breather or excess water supply outlet	Height location from free flowing level above static pressure.; No screen installed	Non-free-flowing will cause scouring or seepage; Entry of insects and reptiles	Reinstallation of overflow pipe within free flowing level or below static pressure Installation of screen	Install overflow pipe with screen below static pressure to effect free flowing.
Manhole	Breather and cleaning outlet	No nosing Rain water enters into the intake box	Water contamination	Install ation of nosing at the mouth of manhole to prevent entry of rainwater	Consider nosing at the side of manhole in the design and during construction.
Clean-out drain pipe	Drain water	Clogging	Slow or non-liquid flow	Cleaning	Undertake regular monitoring and cleaning.
Fixed ladder	Stairway for cleaning tank	Rust	Damage	Regular application of rust proofing	Undertake regular rust proofing.
Inlet pipe	Passage of water from transmission line to tank	Clogging or leaking	Slow or non-liquid flow.; water wasted	Cleaning and immediate repair of leaks	Undertake regular monitoring, cleaning and maintenance.
Outlet pipe	Passage of water from tank to distribution line	Clogging or leaking	Slow or non-liquid flow.; water wasted	Cleaning and immediate repair of leaks	Undertake regular monitoring, cleaning and maintenance.

Topic 6: Tank sizing

Facilitator presents the required data to be considered for tank sizing.

Required data:

1. Design population (number of beneficiaries)
2. Growth rate (%)
3. Project life (years)
4. Water daily demand (liters per second or lps)
5. Source flow (liters per second or lps)

Use the piped-water system design hydraulic computations form.

Facilitator emphasizes the following:

- Tank size depends on the users' demand.
- If an economical tank is to be constructed, tank size should not exceed 50% of the total average daily demand of water.
- For spring source, size of storage tank is 30%–50% of total average daily demand.
- For drilled or pumping, size of tank is 25%–45% of total average daily demand.
- For tank size projection, consider the growth rate of the population.

Facilitator presents examples of tank size projection.

Participants spend the whole afternoon of Day 3 in the construction sites. They continue with the actual hands-on training on ferrocement tank construction.

DAY 4

Participants spend the whole day in the construction sites.

DAY 5

Topic 7: Water treatment

The facilitator presents the properties of water, its qualities and the methods of water treatment.

Physical Properties	*Biological Properties*	*Mineral Properties*	*Chemical Properties*
1. Smell 2. Color 3. Taste	1. Bacteria 2. Virus	1. Lead 2. Sulphur 3. Sodium 4. Other Minerals	1. Pesticides (insecticides, fungicides) 2. Fertilizers

VARIOUS WATER QUALITIES

NAME	CAUSE	SYMPTOM	EFFECT	TREATMENT
1. Hard water	Dissolved calcium and magnesium Bicarbonates, sulphates or chlorides in the water Dissolved iron in small quantities Dissolved aluminum	Calcium deposit on cooking pots and pipes Slimy scum when soap is used Severe coatings below the water line in bath tubs Glassware and windows appear streaky grey after washing	Reduces pipe diameters Increases soap consumption	Softening by: • Reverse osmosis • Ion exchange • Recharging
2. Acid water	Dissolved sulfur and carbon dioxide Sulphuric, carbonic, and nitric acids that have been neutralized Acid derived from decaying organic matter from swamps or bogs	Corrosion on steel parts and copper soldering Mortar joints in showers disappear Corrosion of steel makes red stains in wash basins and lavatory Corrosion of copper and brass makes green stains in wash basins Iron removal does not work optimally Surface of teeth gets rough	Coffee and tea made from acidic water will quickly damage teeth Bitter taste	Neutralizing tank (water passes through limestone marble) Feeding with soda ash Feeding with caustic soda
3. Red water	Dissolved iron: • Corrosion of steel pipes and tanks • Dissolving action of water as it passes through ground iron deposits	White clothes turn reddish or yellow when washed Bath tubs and lavatories get red stains from the water outlet Pots turn red inside	Excessive odor and taste	Sealing of wells Using diaphragm tanks (instead of pressure tank) in storing water Phosphate feeding (between well and tank)

NAME	CAUSE	SYMPTOM	EFFECT	TREATMENT
3. Red water (continued)	• Acid ions in the water, even at normal pH values • After a long period without water consumption, the first tap water is red • In extreme cases, the water tastes metallic - Ion Bacteria • Well is infected with ion bacteria which will spread to water supply system	- Red slime develops in sewage siphons and toilet tanks - Screens in taps are occasionally blocked by slimy rust - Pressure gauges do not function due to inlets being blocked by slimy rust		- Passivate the iron ions to eliminate oxidation - Ion exchange - Aeration-flocculation and filtration
4. Brackish water	- Dissolved manganese - Acid ions in the water, even at normal pH values	- White clothes turn brownish when washed - Bath tubs, wash basins and lavatories get brownish at the point where water drips from tap - Pots turn black/ brown inside - After a long period without water consumption, the first tapped water is black - Coffee and tea taste bitter		- Shock chlorination followed by continuous chlorination

NAME	CAUSE	SYMPTOM	EFFECT	TREATMENT
5. Fertilized water	- Dissolved nitrate - Contamination from cesspools, farms - Nitrate in the ground due to: • Rain water percolation • Wastewater from households and industry • Manure and fertilizers	- Nitrate dissolved in water cannot be immediately observed; has to be tested	- Increases the risk of stomach cancer with long-term exposure (>200 ppm) - Affects the blood's ability to counteract oxygen decreases - Infant methomo-globinemia (bluish skin coloration)	- Abandon well. - Drill a deeper well (>10–30 meters) (between 60-70 meters). - Purify drinking water by ion exchange.
6. Rotten egg water	- Dissolved hydrogen sulphide gas - Sulphate reducing bacteria in the water - Sulphur bacteria in the water	- When being cooked, food tastes like rotten eggs. - Surface of silverware turns black. Steel and copper pipings corrode.		- Chlorinate the well. - Aerate the water. - Flocculate the impurities. - Filtrate through a fine-grained sand filter.
7. Turbid or off-flavor water	- Dissolved sediment and organic matter, minerals in high concentrations - Screens in the casing are not supplied with gravel packing. - Casing or screen is corroded with pitting corrosion. - Sea water pumped into it - Water source has passed through areas containing oily water or chemical waste.			- Chlorinate the well. - Aerate the water. - Undertake flocculation and oxidation. - Filter by means of diatomite filter activated carbon filter.

METHODS OF WATER TREATMENT

METHOD	TYPE OF TREATMENT	CONSTRUCTION COST	O & M COST	RELIABILITY	CONSTRUCTION SKILL REQUIRED	O & M SKILL REQUIRED
Storage	Clarification of mild turbidity	Low	Low	Small volume of water only; used with filter and/or disinfection	Low	Low
Household Filter	Clarification of turbid water; removes some pathogens	Low	Low	Up to 2,700 liters per day; used with disinfection	Low	Low
Boiling	Complete disinfection	Low	High	Small volumes	Low	Low
Chemical disinfection by hand	Disinfection of clear water; kills most pathogens	Low	High	Difficult to determine; taste only	Low	Medium
Plain sedimentation basin	Clarification of very turbid water	Medium	Low	Use with filtration and disinfection	Low	High
Slow sand filter	Clarification and disinfection	High	Low	Kills most pathogens with proper maintenance	High	Medium
Simple disinfection unit	Disinfection of clear water	Low	High	Frequent chlorine checks are necessary	Medium	High

After the lecture, participants are asked to finish the construction of their respective tanks.

When construction is done, participants are asked to go back to lecture area. They then share learnings and experiences from the five-day training.

After the sharing, facilitators wrap up the training and distribute the certificates of training attendance.

SECTION 3.2A
WATER SYSTEM OPERATIONS MANAGEMENT TRAINING

EXCERPTS FROM PEF-VISAYAS MANUAL ENTITLED *WATER SYSTEM OPERATIONS MANAGEMENT TRAINING MANUAL: A TRAINER'S GUIDE*

The Peace and Equity Foundation (PEF) expresses its gratitude to PEF- Visayas Regional Manager, Ms. Ofelia Rivamonte-Cardeño, who inspiringly attended to all the tasks involved from the conceptualization to completion of this manual; Engr. Petronio C. Muring who proficiently designed the training and its contents, and deligently pre-tested the manual; and Step Up Consulting Services' Mr. Michael Cañares for his valuable technical assistance and Mr. Alvin Luis O. Acuzar for his artistic drafting of the manual.

Training design
Session guide
Preliminaries

- Session 1 – Water cycle and water sources
- Session 2 – Operation and maintenance of spring intake box and pumping facility
- Session 3 – Operation and maintenance of pipelines
- Session 4 – Maintenance and repair of water tanks
- Session 5 – Water treatment
- Session 6 – Water system field operation exposure
- Session 7 – Field exposure trip debriefing
- Session 8 – Water rate computation
- Session 9 – Action planning

Training evaluation and closing ceremony

Introduction

The training manual contains the training design and session plans on the eight basic topics that should be taught to water system operators or a water management body technical management operating a piped-water system. It also contains some session handouts that could be adapted by the guide users in the implementation of the sessions.

This is best used by experienced professionals who are equipped with sufficient knowledge, skills and experience to deliver the training. Details of the session plans' activities are provided to narrow down the discussion in terms of content and guide flow.

A trainer's training program is ideally conducted for the users of this manual to equip would-be trainers with the necessary expertise to effectively and efficiently deliver the recommended sessions.

The conduct of this operational management training will result in a village-level operation and maintenance (VLOM) of water systems managed by their respective water users or beneficiaries.

It is worth noting that training is just one of the tools in building the capability of water management bodies that are expected to operate, maintain and sustain their water systems. The impact of this training and other water-related trainings together with an effective organizing work translatign into a strong community-based water organization.

Training design and session plans

Title:	Water System Operational Management
Duration:	Two and a half (2.5) days
Training mode:	Live-in
Target participants:	Water management technical staff (managers, plumbers, meter readers, operator-watchmen) water management officers, project site-based community organizers and engineers, PEF community organizers and development associates
Training goals:	a. To enhance the knowledge and skills in the operation, maintenance and repair; and b. To redirect and condition attitudes and habits.
Resources needed:	1. Participant's kit (name tags, pens, paper, folders, handouts) 2. Supplies (metacards, brown sheets, marking pens, colored chalk) 3. Equipment (PCs, LCD, OHP, screen, extension wire and sound system)
Participants' requirements:	Engineering plans, plumbing tools, plumbing materials and other water system project construction-related data.

Day 1

TIME	SESSION
8:30–9:00 am	Arrival and registration
9:01–10:00	Preliminaries a. Opening prayer b. Welcoming c. Introduction of participants d. Leveling of expectations e. Training goals, schedule, content and methodologies
10:01–10:10	Break
10:11–12:00	Session 1: Water cycle and water sources 1.1 Types 1.2 Characteristics 1.3 Flow measurements 1.4 Water service levels
12:01–1:00	Lunch
1:01–2:30 pm	Session 2: Operation and maintenance of spring intake box and pumping facility 2.1 Structure 2.2 Parts/components 2.3 Maintenance schedule

2:31–6:30	Session 3: Operation and maintenance of pipelines 3.1 Plumbing tools 3.2 Pipes and fittings 3.3 Valves and cocks 3.4 Water meters 3.5 Faucets and tapstands
6:00–7:00	Dinner
7:00–8:00	Continuation of operation and maintenance of pipelines

Day 2

TIME	SESSION
8:30–9:00 am	Invocation, recap and announcement
9:01–10:30	Session 4: Maintenance and repair of water tanks 4.1 Structure and appurtenances 4.2 Leak detection 4.3 Repair methods 4.4 Maintenance schedule
10:31–10:35	Break
10:36–12:00	Session 5: Water treatment 5.1 Water treatment methods 5.2 Household water disinfection 5.3 System disinfection
12:00–1:00 pm	Lunch
1:00–4:00	Session 6: Water system field operation exposure
4:01–4:30	Rest
4:31–5:00	Session 7: Field exposure trip debriefing
5:01–7:30	Session 8: Water rate computation 8.1 Expense items 8.2 Sources of income 8.3 Rate computation steps
7:31–8:30	Dinner

Day 3

TIME	SESSION
8:30–9:00 am	Invocation, recap and announcement
9:00–10:30	Session 9: Action planning
10:30–11:00	Training evaluation
11:00–11:30	Closing ceremony
11:30–12:30	Lunch

Preliminaries

Duration: 60 minutes (1 hour)

Activity	*Session Title*	*Timeframe*
1	Opening prayer	2 minutes
2	Welcoming	3 minutes
3	Introduction of participants	20 minutes
4	Leveling of expectations	20 minutes
5	Training goals, schedule, content & methodologies	15 minutes

Session objectives

At the end of the session, the participants will be able to:

- Discuss their expectations of the training;
- Get oriented on the over-all objectives of the training-workshop and the processes involved;
- Know the schedule of activities and the amount of time needed for each session; and
- Learn about the approach and the core values behind the training-workshop process

Materials needed

- OHP/ LCD
- Transparencies/ slides
- Templates for the leveling of expectation
- Marking pens
- Board and colored chalk

Methodologies

- Conversation
- Presentations

Discussions

Activity 1: Opening prayer

- Assign somebody to lead the opening prayer.

Activity 2: Welcoming

- Welcome the participants and prepare them for the two and a half days training.
- Request any representative from Peace and Equity Foundation to deliver the welcome address.
- Make sure the PEF representative covers the purpose of the training and its context.
- Introduce yourself, your co-facilitator and your staff who will assist in the training.

Activity 3: Introduction of participants

- Let the participants introduce themselves, their organization and designation.

Activity 4: Leveling of expectations

- Let the participants express their expectations from the training, their co-participants, the trainers and facilitators.
- Present and explain the template of expectations questions.
- Write the responses on the cartolina during the plenary.
- Exhaust participant responses to warm them up and make them think about each other's expectations.

- Make the session snappy and fast moving.
- End the session by confirming those expectations which will be covered and not covered in the training-workshop.

Activity 5: Training goals, schedule, contents and methodology

- Post and present the training objectives template.
- Post and present the training flow.
- Using the training flow presented, explain the schedule of the training.
- Request the participants to be mindful of the time for every activity.
- Present and explain training methodology.

Session 1

Topic: Water Cycle and Water Sources

Duration: 100 minutes (1 hour and 40 minutes)

Sub-topics	*Session Title*	*Timeframe*
Introduction		5 minutes
Input 1	The hydrologic cycle	15 minutes
Input 2	Characteristics of water sources	15 minutes
Input 3	Types of spring	10 minutes
Input 4	Spring flow measurements	25 minutes
Input 5	Water service levels	25 minutes
Synthesis		5 minutes

Session objectives

At the end of the session, the participants will be able to:

- Appreciate the value of water cycle;
- Enumerate and discuss the different types of springs and their characteristics;
- Determine spring flow;
- Identify and differentiate water service levels; and
- Identify and discuss the major system components and functions.

Materials needed

- OHP/ LCD
- Transparencies/slides
- Flipcharts
- Board and colored chalk
- Handout # 1

Methodologies

- Lecture-discussion
- Brainstorming
- Illustration

Discussions

Introduction:

- Begin by identifying the water sources of your participants.

Input 1: The water cycle

- Brainstorm on why there is a water source and from where it comes.
- Illustrate each idea by gradually presenting the water cycle concept.
- Define and present the stages of water cycle.

Input 2: Characteristics of water sources

- Based on the water cycle illustration, let the participants identify the different water sources.
- Present the different characteristics of, spring, river, ocean and the ground water in the context of water cycle (water sources' distinctiveness, its nature and boundaries).
- Among the four water sources enumerated, highlight the characteristics of springs (assuming that all partners have a spring water source).

Input 3: Types of spring

- Introduce spring as a good water source by determining its mineral contents in respect to the products made out of it.
- Define and present sloped and flat spring as major spring categories.

Input 4: Spring flow measurement

- Ask the participants to enumerate the materials and processes in determining quantity of water available from a water source.
- Illustrate answers through drawings.
- Define the importance and guidelines in selecting a source of water that can provide enough supply to meet the needs of community and if it is reliable throughout the year.
- Discuss, illustrate and present a simple computation to measure spring flow to determine whether a source meets the needs of the community vis-à-vis accessibility and affordability of its development.

Input 5: Water service level

- Let participants identify the three water service levels.
- Define useful words like communal distribution point and transmission lines.
- Differentiate each water level by defining its delivery system using visual aids that illustrate each typical setting.
- Present the average household or per capita water usage per level.

Synthesis of the session

- Ask the participants about their learning regarding the session; and
- Summarize the session.

Session 2

Topic: Operations and Maintenance of Spring Intake Box and Pumping Facilities

Duration: 90 minutes (1 hour and 30 minutes)

Sub-topics	*Session Title*	*Timeframe*
Introduction		10 minutes
Input 1	Spring structure	25 minutes
Input 2	Parts	15 minutes
Input 3	Maintaining structures for spring	25 minutes
Input 4	O & m for pumping facilities	10 minutes
Synthesis		5 minutes

Session objectives

At the end of the session, the participants will be able to:

- Explain the importance of the spring intake box;
- Discuss the procedures on how to operate and maintain spring structures (boxes) and its vicinity; and
- Enumerate the different pump parts and discuss its principles.

Materials needed

- OHP/LCD
- Transparencies/slides
- Carton box (size like a spring box)
- Board and colored chalk
- Handout # 2
- Sample pictures of spring intake box structures

Methodologies

- Lecture-discussion
- Brainstorming
- Sharing
- Illustration
- Demonstration

Discussions

Introduction:

- After participants learn the value of water from the first session, let them now understand that water sources should be protected, thus structures are needed to shield the source and those require attention after installation.
- Present the Spring Development Guidelines and its general construction steps.

Input 1: Spring structures

- Ask the participants to briefly describe a spring box based on what they observed.
- Illustrate their answer on the board.
- Present and differentiate the so-called traditional and new spring box designs (for both sloped and flat spring sources).

Input 2: Spring tank parts

- Let participants enumerate each tank part.
- Determine, discuss and illustrate on the board the function/s of each part (including its proper positioning).
- Present a picture (slide) of an "ideal spring box" through the LCD.

Input 3: Maintaining structures for springs

- Present and define first the meaning of erosion, pervious, sediment and turbidity.
- Explain the important considerations in the maintenance of spring box.
- Enumerate maintenance activities for spring structures.

Input 4: Operation and maintenance for pumping facilities

- Let participants enumerate the different types of wells.
- Determine, discuss and illustrate on the board each answer.
- Define and differentiate types of well (deep and shallow wells).
- Present and illustrate the different kinds of pumping facilities for deep and shallow wells (centrifugal and submersible pumps).
- Explain the proper maintenance of wells and proper handling of pumps.
- Present visual aids (pictures/slides) that will illustrate pumping facilities.

Synthesis of the session

- Summarize the session; and
- Emphasize that operation and maintenance of the spring box is a process that should be thoroughly followed.

Session 3

Topic: Operations and Maintenance of Pipelines

Duration: 245 minutes (4 hours and 5 minutes)

Sub-topics	*Session Title*	*Timeframe*
Introduction		15 minutes
Input 1	Plumbing Tools	40 minutes
Input 2	Pipes and Fittings	60 minutes
Input 3	Valves and Cocks	30 minutes
Input 4	Water Meters	60 minutes
Input 5	Faucets and Tapstands	30 minutes
Synthesis		10 minutes

Session objectives

At the end of the session, the participants will be able to:

- Enumerate plumbing tools and discuss their usage;
- Identify and discuss the procedures in maintaining and repairing pipes and fittings;
- Discuss how to operate, maintain and repair valves;

- Explain how to read water meters and compute consumption; and
- Describe how to maintain and repair faucets and clean tap stand surrounding.

Materials needed

- OHP/ LCD
- Transparencies/slides
- Flipcharts
- Board and colored chalk
- Handout # 3
- Sample plumbing tools, pipes, fittings, valves and cocks, water meter, and faucet

Methodologies

- Lecture-discussion
- Brainstorming
- Question-and-answer
- Illustration
- Demonstrations on the use/functions of the sample materials

Discussions

Introduction:

- Ask the participants if they have their plumbing tools with them.
- Present plumbing terms (pipe length, pipe run, fitting, joint, center-to-center, female, male, and gluing).

Input 1: Plumbing tools

- Through a brainstorming activity, let participants identify and enumerate plumbing tools for the installation of pipes.
- Cluster all ideas as to primary tools, secondary and optional category.
- Present sample plumbing tools or pictures and define each tool's function, standard quality and usage.

Input 2: Pipes and fittings

- Define a pipe as a long, closed hollow tube or conduit through which liquid or gas flows.
- Explain the proper selection and usage of pipe/s and pipefittings as a vital component of all gravity and pumped water systems.
- Let the participants identify and enumerate pipes and fittings commonly used in rural water supply.
- Determine and explain the different pipes commonly used in rural water supply [Galvanized Iron (G.I.) pipe, Plastic Polyethylene pipe (PE) and Plastic Polyvinyl Chloride pipe (PVC)] and their application.
- Define and characterize the different pipe materials and pipe fittings including their specifications.
- Discuss why, when and where to use and install union.
- Discuss when to use the different types of couplings.
- Discuss "the how to connect pipes" (welding and threading for G.I. pipes, butt welding for PE, glue for PC pipes, backfilling the trench, etc.).
- Present visual aids (pictures/slides) that will illustrate pipes and fittings connections.

Input 3: Valves and cocks

- Let the participants identify common valves and cocks used in rural water supply.
- Determine and present valves and cocks items and define their use and provisions including their advantages using sample items.
- Discuss when and where to use and install valves.
- Present visual aids or pictures that illustrate its usage in actual pipe connections.

Input 4: Water meters

- Let the participants enumerate brands of water meter.
- Of the aforementioned brands, identify durable and affordable brands.
- Present a sample water meter and define its purpose including defining "standard quality" water meters.
- Dismantle and present the basic function/s of its part.
- Explain and present also which part/s of the meter is prone to water tampering.
- Discuss the proper or normal way of reading a water meter.
- Present visual aids (pictures/slides) that will illustrate the proper connection/plumbing layout of water metering assembly.
- Let the participants see and dismantle the sample water meter.

Input 5: Faucet and tapstand

- Ask the participants about the purpose of a tap stand and faucet.
- Define faucet as a flow control device in a water distribution system.
- Present a sample faucet item and introduce its parts (dismantle if possible).
- Explain the proper connection of faucet by illustrating the individual service pipeline and stand pipe connections.
- Discuss the proper/appropriate plumbing layout of tapstand including the "self cleaning activities."
- Present visual aids (pictures/slides) that will illustrate proper connection of faucets (tapstand).

Synthesis of the session

- Ask the participants about their learnings regarding the session; and
- Summarize the session.

Session 4

Topic: Maintenance and Repair of Water Tanks

Duration: 90 minutes (2 hours and 30 minutes)

SUB-TOPICS	*SESSION TITLE*	*TIMEFRAME*
Introduction		5 minutes
Input 1	Structure & appurtenances of a tank	30 minutes
Input 2	Leak detection	20 minutes
Input 3	Repair methods	20 minutes
Input 4	Maintenance schedule	10 minutes
Synthesis		5 minutes

Session objectives

At the end of the session, the participants will be able to:

- Enumerate and describe the basic parts of a tank;
- Discuss the methods in detecting leaks; and
- Discuss the methods in inspecting, maintaining and repairing a water tank.

Materials needed

- OHP/LCD
- Transparencies/slides
- Flipcharts
- Board and colored chalk
- Handout # 4

Methodologies

- Lecture-discussion
- Brainstorming
- Illustration

Discussions

Introduction:

- Ask the participant's perspective of the storage tank purpose.
- Define and explain storage tank's purposes.
- Define terminologies such as minimum and maximum water level, working pressure and safe working pressure.

Input 1: Structure and appurtenances of a tank

- Ask the participants about the different structural designs of water tank (cylinder, cube, sphere and rectangular prism shapes).
- Categorize each design's advantages and disadvantages.
- Define which among the designs is cost efficient and recommended by PEF (cylinder ferrocement).
- Present a comparison analysis of the so-called "traditional" cubical design and the new cost efficient cylinder structure using Ferro-cement materials.
- Let the participants enumerate materials needed in constructing a ferrocement tank.
- Present a schematic diagram of storage tanks with appurtenances.
- Explain the different types of tanks relative to its placement.
- Enumerate, explain and illustrate tank appurtenances and its layout.
- Present visual aids (pictures/slides) that will illustrate tank plumbing layout.

Input 2: Leak detection

- Based on the plumbing layout, explain the operation of water tank.
- Ask the participants which part of the system where leaks can be possibly detected.
- Determine and explain detection spot for leak in steel tank and concrete tanks.

Input 3: Repair method

- Ask the participants about their practices of handling leaks.
- Compare participants' answers based on the proper methods of repairing leaks for steel and concrete tanks.
- Explain procedure of repairing leaks using cement and water plug.
- Discuss and illustrate the proper handling of patching-up cracks and the importance of painting tanks.

Input 4: Maintenance schedule

- Present the importance and procedure of cleaning tanks.
- Encourage participants to set regular schedule for cleaning.

Synthesis of the session

- Summarize the session.

Session 5

Topic: Water Treatment

Duration: 90 minutes (1 hour and 30 minutes)

Sub-topics	*Session Title*	*Timeframe*
Introduction		5 minutes
Input 1	Water Treatment Methods	30 minutes
Input 2	Household Water Disinfection	20 minutes
Input 3	Piped- Water System Disinfection	30 minutes
Synthesis		5 minutes

Session objectives

At the end of the session, the participants will be able to:

- Enumerate and describe the different water treatment methods;
- Discuss the steps in disinfecting water; and
- Discuss the steps in disinfecting a piped-water system.

Materials needed

- OHP/LCD
- Transparencies/slides
- Flipcharts
- Board and colored chalk
- Handout # 5
- Chlorine, dipper, container #5

Methodologies

- Lecture-discussion
- Question-and-answer
- Illustration
- Demonstration

Discussions

Introduction:

- Present and explain the characteristics of water (physical attributes, components and chemical properties).
- Discuss possibilities of water contamination.
- Explain what types of water-borne disease can be derived from contaminated water.

Input 1: Water treatment methods

- Based on your introduction, ask the participants about their perspective in disinfecting contaminated water.
- Define and discuss the meaning of disinfection.

- Present and illustrate common water treatment processes (boiling, filtration, and chlorination).

Input 2: Household water disinfection

- Discuss basic guidelines in emergency purification of household drinking water.

Input 3: Piped-water system disinfection

- Discuss the methods of water treatment for small rural communities (disinfecting of water supplies, wells and pumping facilities, reservoir and storage tanks, pipelines).
- Discuss and illustrate concept in constructing a disinfection unit.
- Explain procedural activities and amounts of chlorine compounds that are normally employed in disinfecting a newly constructed/repaired well, storage tanks, pipelines, spring boxes and other components of the water supply system.

Synthesis of the session

- Summarize the session; and
- Emphasize the significance of a scheduling system for the disinfection of the water system to avoid incidence of water-borne diseases.

Session 6

Topic: Water System Field Exposure
Duration: 160 minutes (3 hours)

Sub-topics	*Session Title*	*Timeframe*
Input 1	Objective setting	10 minutes
Activity 1	System Field Exposure	150 minutes

Session objectives

At the end of the session, the participants will be able to:

- Identify and recall major water system parts and their functions;
- Demonstrate how parts function;
- Illustrate and demonstrate how system operates; and
- Demonstrate how to disinfect a system.

Materials needed

- Vehicle
- Manila paper
- Pen
- Masking tape
- Handout # 6

Methodologies

- Question-and-answer
- Demonstration
- Illustration

Discussions:

Input 1: Objective Setting

- Present and discuss the objectives of the trip.
- Present and explain the cross-visit checklist.
- Define basic guidelines for safety.

Activity 1:

- Upon arrival at the venue, convene all participants at the source of the system going up to its tank and down to the distribution pipe network.
- Let participants identify and define structures seen at the venue.
- Counter-check answers and gives additional details.
- Let participants interview key leaders and members.

Session 7

Topic: Field Exposure Trip Debriefing

Duration: 30 minutes (half an hour)

Sub-topics	*Session Title*	*Timeframe*
Introduction		5 minutes
Input 1	Debriefing	20 minutes
Synthesis		5 minutes

Session objectives

At the end of the session, the participants will be able to:

- Enumerate the positive and negative observations; and
- Integrate learning and insights to their situation.

Materials needed

- Template
- Pen
- Masking tape
- Handout

Methodologies

- Brainstorming
- Question-and-answer

Discussions

Introduction:

- Leveling of experience (how do they feel about the activity)

Input 1: Debriefing

- Recap using the ORID method (Objective, Reflective, Interpretative & Decisional questioning), the objective of which is to define the positive and negative observations at the site and to relate participants' learnings and insights to their situation. The following questioning may help:
  - What do you remember from the visit?
  - What are the good things you observed (in structure, policy, organization)?
  - What do you think are the loopholes?
  - What are the significant learnings from the trip?
  - How do we apply these learnings in your cooperative/association?

Synthesis of the session

- Summarize the session; and
- Encourage participants to take the negative aspect/s as room for improvement.

Session 8

Topic: Water Rate Computation

Duration: 150 minutes (2 hours and 30 minutes)

Sessions	*Session Activities*	*Timeframe*
Introduction		30 minutes
Input 1	Expense items	25 minutes
Input 2	Source of income	25 minutes
Input 3	Rate computation steps	60 minutes
Synthesis		10 minutes

Session objectives

At the end of the session, the participants will be able to:

- Identify common expense items in water facilities; operations;
- Enumerate sources of revenue from water service; and
- Compute water rate.

Materials needed

- OHP/LCD
- Template of the computation outline (Transparency)
- Manila paper
- Pen
- Masking tape
- Board and colored chalk
- Activity sheet: Water tariff outline
- Handout # 7

Methodologies

- Lecture-discussion
- Workshop (Computation Exercise)
- Illustration

Discussions

Introduction:

- Set the stage as if you are the People's Organization (PO) president and your participants are members and the group is now conducting a water tariff hearing.
- Encourage participation during deliberation.
- Briefly discuss the importance of setting a water tariff.
- Present the concept of water as "economic tool" vis-à-vis unfair pricing practices.
- Inform the group of the agencies that regulate water rates.
- Encourage participants to clarify matters before the first input.

Input 1: Expense items

- Present and explain the meaning of expense item.
- Enumerate and define each item (expense).

- Present the concept of subsidized versus self-sustaining pricing policies and a full cost pricing system (including its possible benefits).

Input 2: Sources of income

- Present and explain the meaning of sources of income.
- Enumerate possible sources of income.
- Define and explain each item.
- Discuss the five formable obstacles when trying to secure adequate revenues (to maintain and replace aging infrastructures).

Input 3: Rate computation steps

- Present and explain the basic principles governing water rates computation.
- Present and discuss the different water pricing structures and define its advantage/s and disadvantage/s.
- Explain the Total Cost Recovery Computation for water rates.
- To illustrate the computation, ask one PO to supply information for sample purposes.
- Instruct the participants to follow through the process of computing the rates for them to appreciate the method.

Synthesis of the session

Guide the participants in justifying and evaluating the appropriateness of the result of the activity by answering the following questions:

- Does the rate provide adequate revenues to cover all costs of service?
- Are costs fairly apportioned to each class of consumer? Equitable to all types of user?
- Are the rates affordable to the majority of the public water consumers?
- Are the rates acceptable to the public and to focal officials responsible for administering them?
- Does the rate encourage or discourage water conservation?

Session 9

Topic: Action Planning

Duration: 90 minutes (1 hour and 30 minutes)

Sessions	*Session Activities*	*Timeframe*
Introduction	Workshop objective	10 minutes
Input 1	Presentation of workshop template	10 minutes
Activity 1	Workshop	60 minutes
Activity 2	Submission of output	10 minutes

Session objectives:

At the end of the session, the participants will be able to:

- Formulate and discuss reentry plans to their respective project sites.

Materials needed

- Action Planning Template
- Manila paper
- Pen
- Masking tape

Methodologies

- Lecture-discussion
- Workshop (Computation Exercise)

Discussions

Introduction:

- Orient the participants about the objective of the activity.

Input 1: Presentation of workshop Template

- Present and explain the following workshop template (focus on planning of schedules for trainings, organizing and engineering activities):

ACTION PLAN

Period Covered _____ to _____

Brgy: _____ Total Project Cost: _____
Town: _____ Prepared by: _____
Province: _____

Project Title: _____

Activity	Duration	Date	In-charge	Resources Needed				Remarks
				Money	Manpower Type	Equipment	Others	

Activity 1: Workshop proper

- Briefly inform the group that the workshop is intended only for one hour.
- Group the participants by PO.
- Assign each group a designated area and assistant facilitator to guide them.
- The participants are free to provide more information that would help reflect the real situation on the ground.

Activity 2: Submission of outputs

- After one hour collect all outputs.
- Inform the participants that all outputs are still subject for review and approval.

Training evaluation and closing ceremony

Duration: 60 minutes (1 hour)

Activity	*Session Title*	*Timeframe*
Introduction	Training evaluation objective	5 minutes
Activity 1	Answering the evaluation sheet	20 minutes
Activity 2	Acknowledgement	5 minutes
Activity 3	Distribution of certificates	25 minutes
Closing	Closing remarks	5 minutes

Session objectives

At the end of the session, the participants will be able to:

- Assess the conduct of the training, the administration and training venue and its amenities.

Materials needed

- Evaluation sheet (handout # 8)

Methodologies

- Presentation
- Individual writing

Discussions

Introduction:

- Present the training evaluation objective.
- Present and explain the evaluation sheet.

Activity 1: Answering of evaluation sheet

- Encourage participants to answer the sheet honestly.

Activity 2: Acknowledgment

- Recognize and thank people responsible for the success of the training.
- Thank the participants, speaker, organizer, etc.

Activity 3: Distribution of certificates & closing remarks

- Ask a PEF representative to help in distributing the certificates. You may use any method appropriate to the time available.
- Call a PEF representative for the closing remarks.

SECTION 3.2B
SAMPLE TRAINING HANDOUT ON REPAIR AND MAINTENANCE OF WATER FACILITIES

ADAPTED FROM MATERIALS DEVELOPED BY PEF-VISAYAS

A. Maintaining structures for springs

In maintaining spring boxes, regularly check and monitor the following:

1. Diversion drainage ditch above the spring is doing an adequate job of removing surface water from the area.
2. The upslope wall is solid and erosion is not wearing it away.
3. Periodic samples of the water are analyzed for evidence of fecal contamination.
4. Box is water-tight (check the cover, overflow and air vent pipes).
5. All available water is being collected by the system.
6. System is cleaned adequately.
7. Check if screening on the pipes has to be cleaned.
8. Check if seep collection systems are in place.
9. If there is a fence above the spring, make sure it is in good repair and is effectively keeping animals away from the spring.

B. Maintaining pumping facilities

1. Do not put heavy materials on cover.
2. Do not construct s toilet within 25 meters from the well.
3. Do not destroy well wall and drainage.
4. Do not abuse your well and pump.

C. Maintaining faucets and tapstands

1. Regularly check against corrosion.
2. Valve should not be closed too tightly.
3. Replace worn out washers or loose packing.
4. Check for cavitations.
5. Check water hammer regularly.

D. Maintaining reservoirs and storage tanks

1. Cleaning of tanks

The quality of water coming from storage tanks must be maintained. This is usually done by cleaning and disinfecting it periodically. Failure to do this will result in the accumulation of solids and proliferation of bacteria in the tank, making the water unsafe for drinking. Cleaning is usually done at least once a year and/or if it contains an appreciable amount of dirt.

a. Check whether the reservoir contains an appreciable amount of accumulated dirt. This is accomplished by first lowering the water level up to 15–20 cm. above the bottom of the tank. Stir up the sediments. If the bottom appears to be clean and there are few or no sediments, there is no need to clean. Otherwise, follow the cleaning procedure presented below.

b. Brush the walls, columns, ladders, etc. to remove adhering dirt particles and algae, if any.

c. Open the drain valve to drain the remaining water. While draining, agitate the water to keep the dirt particles from settling and sweep the floor towards the outlet.

d. Disinfect the tank by any of the following methods:
   - Fill the tank with 50 cm chlorine solution and allow the solution to stand for 24 hours before draining it.
   - Prepare a thin paste by mixing bleaching powder and water in a pail. Apply the thin paste vigorously using a brush on the interior surfaces of the reservoir. Allow one hour to pass before rinsing tank with clean water.
   - When disinfecting pressure tanks, open the air relief valve at the highest point so that air is released and the tank could be completely filled with heavily chlorinated water. Air should be readmitted before pumping.
   - In chlorine treatment, water drained out of the tanks should show distinct residual chlorine. This is evidenced by a very slight odor of chlorine in the water. If there is no residual chlorine, the disinfection process should be repeated.

e. Put the tank back to operation after rinsing it with clean water.
   During the disinfection process, workers must be equipped with breathing apparatus and full protective clothing. In case the bleaching powder solution accidentally gets in contact with the eyes, immediately wash the eyes with clean water. After the disinfection, all those involved in the work must bathe.

2. Detection and repair of leaks in steel tanks

Reservoirs made of steel are usually installed above ground, to allow visual detection of leaks. Leaks in steel tanks can be repaired by:

a. If the leak is small, cover the leak with epoxy.

b. If the leak is big, put a steel plate a little larger than the hole. Cover the hole with the steel plate and weld it in place.

3. Detection and repair of leaks in concrete reservoirs

Concrete reservoirs may be at ground level or elevated. Leaks may be detected by any of the following methods:

a. If the concrete reservoir is elevated, leaks could be detected visually.

b. If the concrete reservoir is on ground level, leaks could be detected by any of the following methods:
   - Close the discharge pipe control valve. Fill the tank with water up to a certain level and mark the water level. After one or two days, check the water level. Should there be an appreciable decrease in water level, your tank has a leak. During the entire process, the outlet control valve should be tightly closed.
   - If the tank has an under drain, observe the discharge in the under drain. Should there be an appreciable discharge, your tank has leaks. Leaks in concrete reservoirs can be repaired by application of cement mortar or "water plug".

4. Repairing leaks using cement

a. Drain the water content of the reservoir.

b. Using a cold chisel, make a cut on the reservoir leak with the following dimension: width 19–25 mm, and depth 19–25 mm.

c. Prepare a stiff cement mortar paste by mixing one part Portland cement, two parts fine sand and sufficient water.

d. Clean and wet the hole cut in the reservoir. Then apply the cement mortar paste. Allow the mortar to set for 24–28 hours.
e. Disinfect the tank.
f. Rinse the tank with clean water.
g. Put the repaired tank back into operation.

5. Repairing leaks using a "water plug"

A water plug is a quick setting, non-metallic base compound used in repairing leaks. It can be used to repair cracks in reservoirs whether empty or full of water.

When applied, a water plug sets in three to five minutes, depending upon the temperature of the surface on which it is applied. At temperatures higher than 38°C, the water plug sets immediately, resulting in decrease in structural strength. At temperatures below 5°C, it will not set. A water plug is commercially available in powder form.

To use a water plug:

1. Make a cut on the reservoir using a cold chisel with the following dimensions: width 19–25 mm, and depth 19–25 mm.
2. Wet and clean the hole.
3. Make the surface even and smooth.
4. Paint the repaired area.
5. Disinfect the reservoir.
6. Put the reservoir back into operation.

6. Painting the reservoir

Painting is necessary to prevent corrosion in steel tanks, thus prolonging the service life of reservoirs. Painting is carried out usually once every five years after the annual cleaning and inspection of the reservoir. A brief outline of the procedure is presented below:

a. Dry, clean and smooth all surfaces to be painted. Remove all dirt, scale and rust by scraping or fine brushing. Remove oil/grease by using an appropriate solvent.
b. Paint the surfaces of the reservoir. The paint used should not impart taste or odor to the water. It should be free of harmful substances.
c. Disinfect the reservoir.
d. Put the reservoir back into operation.

7. Inspection and maintenance of water tank appurtenances

a. The manhole should always be covered to keep out foreign materials that may contaminate the water supply.
b. The overflow pipe and air vents should be inspected. If these are defective or rusty, they must be replaced immediately.

E. Disinfection of wells and pumping facilities

Newly-constructed and repaired wells and pumps and their appurtenances should be disinfected before usage. The disinfection procedure is as follows:

1. Pour chlorine solution into the well and start the pump. Open the faucets and try to smell the odor of chlorine. When chlorine odor is noticeable, close the faucets and stop the pump. A more convenient procedure is to determine the amount of chlorine solution necessary and then pour the required amount of chlorine solution into the well.
2. Allow the well to stand idle for at least 24 hours.

3. Pump water to waste until the odor of chlorine disappears. (During the first 30 minutes, return the heavily chlorinated water back to the well via the space between the casing and the drop pipe to disinfect this area.)
4. The well is now ready for normal operation.

F. Disinfection of pipelines

A 50 mg/l chlorine solution should be poured until all the pipelines are full. The pipelines are then allowed to stay idle for 24 hours. After 24 hours of contact time, the chlorine solution is drained through the blow-off valves. The pipelines are then flushed with clean water. The residual chlorine should be less than 0.75 mg/l but more than 0.20 mg/l. This is measured roughly with the aid of a chlorine residual test kit.

SECTION 3.3 FINANCIAL MANAGEMENT TRAINING For Water Users Association

A Trainer's Manual

PREPARED BY STEP UP CONSULTING SERVICES

Introduction

In the early part of 2006, Step Up Consulting Services was commissioned by the Peace and Equity Foundation-Visayas Regional Office to conduct mentoring and training of its 14, and later on, 20 organizations assisted to implement a community based water system. The goal of the engagement was to ensure that the organizations are adopting acceptable accounting practices to ensure financial viability of its water project.

As a consequence of the engagement, a series of mentoring and onsite training sessions were conducted by Step Up's Senior Auditor Nina Cervantes, CPA, and Associate Auditor Maria Annabelle Honculada, CPA that yielded significant learnings and insights on how a PEF-sponsored Financial Management training shall proceed.

This trainer's manual is the result of such an endeavor. Its head writer, Michael P. Canares, CPA designed the earlier versions of this manual in July 2006 and was later on finalized in the first half of September. Needless to say, this manual is a work in progress. Since its implementation, its first dry-run shall happen in the last week of September 2006, with Arlen Salgados-Canares, CPA, Alvin Luis Acuzar and Nina Cervantes, CPA as the training team. After running two trainings with the people's organizations in Bohol, Arlen Salgados-Canares wrote the final version.

The materials of the Local Water Utilities Administration formed part of this manual, more particularly on the Water Rate Computation part. Acknowledgements are also accorded to Ofelia Rivamonte-Cardeno for the support to this undertaking.

To the Trainer:

The sessions in this manual are designed with the adult learning concept in mind. Also, sessions draw heavy inspiration from the Technology of Participation methods and some which are patterned from teaching-learning philosophies of the structured learning approach.

To help the trainer in administering the training based on this manual, sample scripts as well as proposed template structures are provided. Creativity, however, is left to the trainer in modifying the proposed templates to ensure maximum learning on the part of the participants.

Basic symbols contained in the manual are as follows:

Time Allotment

Note to the Trainer

Logistic Requirements

Sample Spiel/Script

Sample Template

Training Design

Rationale

Accounting systems are essential to organizational success because through its efficient and effective functioning, proper accumulation of financial information is made possible. Financial data, the hub of managerial decisions, are only reliable if accounting systems are properly placed.

Financial management systems rely heavily on how financial information is accumulated and communicated to users. Through this training and its consequent mentoring sessions, the necessary controls to safeguard assets and ensure the accuracy and reliability of financial data will be achieved. Further, this training hopes to promote operational efficiency and encourage adherence to organizational policies to contribute to greater stability of water systems operations as a community enterprise.

Objectives

Rational Objectives	Experiential Objectives
At the end of the training, the participants should have been able to:	
Understand the importance of financial management in the management of water systems operations	Appreciate the value of analysis of financial statements in drafting proactive interventions to ensure systems opeations
Learn how to best structure an organization's finance function to achieve efficiency of operations as well as control	Feel contented with the different discussions and sharing of ideas and experiences
Discuss the necessary accounting controls and procedures to ensure efficient financial systems operations	Get excited in implementing learned concepts and strategies in their respective work stations
Prepare books of accounts and financial statements and learn basic skills in analyzing it, including the implications of water rates	

General Session Guide

Time	Session
DAY 1	
10:00 – 11:00	Arrival at Venue and Registration
11:00 – 12:00	Preliminaries
Lunch break	
01:00 – 02:00	The Importance of Financial Management "What Went Wrong" Case Analysis
02:00 – 04:00	Structuring the Finance Function
04:00 – 05:00	Basic Accounting Terminologies and Books of Accounts
DAY 2	
08:00 – 08:30	Preliminaries and Recap
08:30 – 12:30	Basic Accounting Review – Phase 1 Journalizing Posting Trial Balance Financial Statements Financial Statement Analysis
Lunch break	
01:30 – 05:30	Basic Accounting Review – Phase 2 Journalizing Posting Trial Balance Financial Statements Financial Statement Analysis
DAY 3	
08:00 – 08:30	Preliminaries and Recap
08:30 – 10:30	Accounting Policies and Procedures
10:30 – 12:00	Water System Rates
12:00 – 12:30	Closing

Opening Plenary

1 hour
(Day 1: 11:00 – 12:00)

Rational Objectives	Experiential Objectives
At the end of the session, the participants shall have been able to :	
Discuss their expectations of the training-workshop	Appreciate the expectations of each of the participants towards the training-workshop
Get oriented on the over-all objectives of the training-workshop and the processes involved	Create awareness and acceptance of the objectives
Know the schedule of activities and the amount of time needed for each session	Promote acceptance and commitment to respect and follow the agreed schedule
Learn about the approach and the core values behind the training-workshop process	Be excited to manifest / demonstrate the core values during the whole activity

Materials Needed:
Easel sheets
Pentel Pens
Masking Tape
Templates for the session

Welcome Address

Welcome the participants to the training-workshop and prime them on the two days of work. Request any representative from Peace and Equity Foundation to deliver the welcome address. Make sure the PEF representative covers the purpose and context of the training-workshop. Introduce yourself, your co-facilitator and your staff who are going to assist in the two-day training-workshop. The introduction of the participants will be done in an activity in the first session.

Expectation Setting

Present these templates <u>one at a time (more preferably the Cebuano translation)</u>:

What do I hope the training-workshop will achieve? (Unsay akong gipaabot nga makab-ot niini nga training-workshop?)	What am I most excited about this two-day training-workshop? (Unsa man ang akong gikahinaman ani nga training-workshop?)	What are my fears about the two-day training-workshop? (Unsa man ang akong mga kabalaka mahitungod niini nga training workshop?)

Write the responses on the easel sheets/cartolina in plenary. This will warm up the participants, while making them think and feel about each other's expectations. Make the session snappy and fast moving. End the session by confirming those expectations which will be covered in the training-workshop and inform them of those which will not be covered.

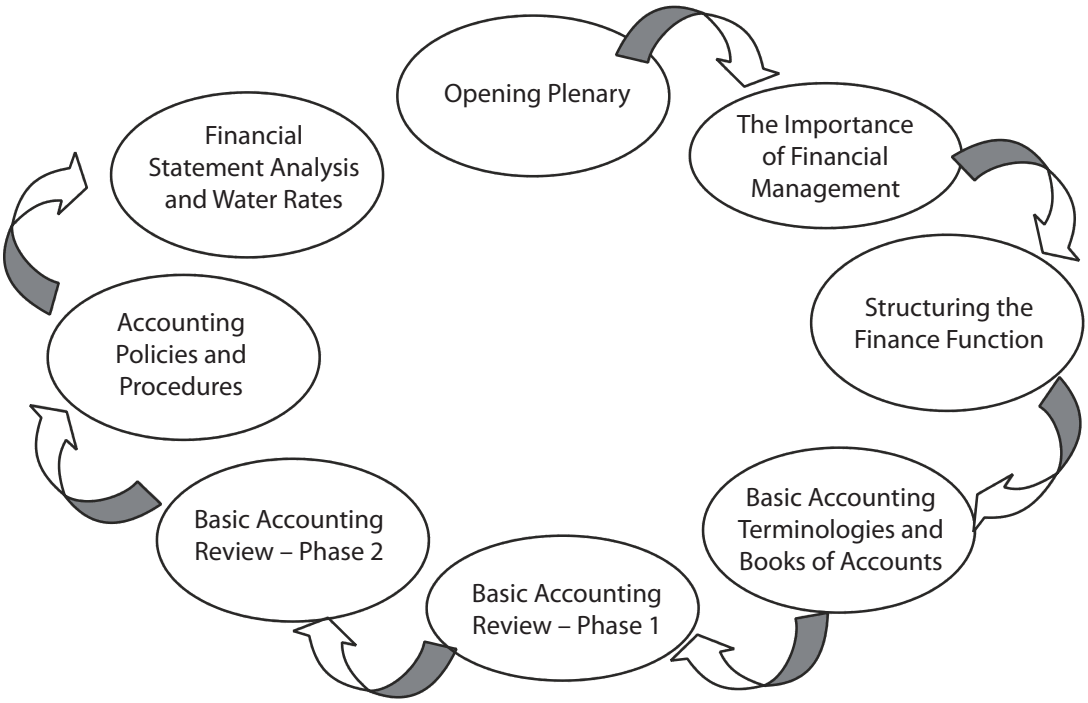
Training-Workshop Objectives

Post and present the objectives template.

TRAINING-WORKSHOP OBJECTIVES
Understand the importance of financial management in the management of water systems operations. Learn how to structure best an organization's finance function to achieve efficiency of operations as well as control. Discuss the necessary accounting controls and procedures to ensure efficient financial systems operations. Prepare books of accounts and financial statements and learn basic skills in analyzing it, including the implications of water rates.

Training-workshop Process

Post and explain the process template.



Schedule of Activities

Using the training-workshop flow presented, explain the schedule of the two-day training-workshop. Request the participants to be mindful of the time and to come on time for every activity.

Day 1	Day 2	Day 3
AM • Arrival and Registration • Opening Plenary	**AM** • ORID recap • Basic Accounting Review – Phase 1	**AM** • ORID recap • Accounting Policies and Procedures • Water System Rates
PM • The Importance of Financial Management • Structuring the Finance Function • Basic Accounting Terminologies and Books of Accounts	**PM** • Basic Accounting Review – Phase 2	**PM** • Departure

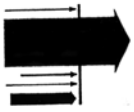
Approach

Present and explain the approach template.

Activity - based	The concepts are introduced by different activities that the participants will experience themselves.
Training-workshop Format	Ideas must be shared, discussed and processed into collectively agreed upon ideas. Everyone is given the opportunity to give his/her ideas / opinions.
Interactive and Fast-Paced	There are technical inputs on some concepts to better appreciate them.
Technical Lecture	The training-workshop format allows for group interaction, and ensures that group consensus is reached in a short period of time.

Foundational Values

Present the Foundational Values Template and explain the principles and biases underlying the training – workshop.

Participation  o everyone carries a piece of the jigsaw puzzle that is needed to complete the picture o diverse perspectives are needed to get the best results	Action  o leads the group to do something concrete afterwards
Teamwork  o everyone has a role to play o the need for team effort is emphasized to get the task done in an effective, efficient and economical way	Reflection  o chance to step back and see what has happened and appreciate the value of collective action o all outputs of the fast-paced process are revisited, integrated and confirmed

The Importance of Financial Management

1 hr. 30 min.
(Day 1: 1:00 – 2:30)

Rational Objectives	Experiential Objectives
At the end of the session, the participants shall have been able to:	
Understand what is financial management. Know the importance of financial management to institutions. Identify hindering factors why effective and financial management can not be achieved. Define the necessary components of effective and efficient financial management systems.	Be aware of the importance of financial management Appreciate the importance of properly managing organizational finances Get interested and excited in knowing the different processes by which effective and efficient financial management systems can be achieved

Materials Needed:
Easel sheets
Pentel Pens
Masking Tape
Templates for the session
Annex "WhatV Went Wrong" Caselet (annex 1)

The "What Went Wrong" Caselet should be prepared, photocopied, equal to the number of pax.

"What Went Wrong" Case Analysis

Tell the participants that they will have a reading assignment, after which they need to discuss their understanding on the topic. Tell them it is a case analysis of a water system association in the Philippines. Give ample time for individual reading first. Do not allow participants to skip the reading exercise since it is very important for discussion purposes.

Tell the participants that you need to divide them into groups of 5. You may do this by counting or you may use the Singing in the Barn. (please refer to separate icebreaker module for facilitators, or ask Alvin).

When they are on their grouping, tell them to discuss the case based on the following questions;

Unsa man ang mga nindot nga panghitabo sa isturya?

Unsa man ang mga dili maayo nga nahitabo?

Sa imong opinyon, unsa man kaha unta ang gibuhat sa mga pangulo aron ilang nalikayan ang mga dili maayong nahitabo?

Sa imong opinyon, unsa kaha unta ang gihimo sa mga miyembro aron malikayan ang mga dili maayong nahitabo?

Ask them to have a discussion facilitator and recorder. The discussion facilitator shall also serve as the group reporter. The recorder must record their answers after using the succeeding template:

Mga Accomplishments		
Mga Problema	Angayan Buhaton sa mga Pangulo	Angayan Buhaton sa mga Miyembro

After their discussions, check if everyone is ready for group reporting. Call in the reporters and let them report their output.

Do a valuing of group reports by highlighting the following points:

a. Thinking of the future – one must not only look at the present in doing something but there is a need to consider the implications of the action to the future

b. Organizational success does not rely on leaders alone, members have a stake in the process

c. People must not only think about what they can receive from an organization, but what they can give as well

d. Money is oftentimes the cause of conflicts in groups and if not properly managed, will surely become a primary cause for disaster.

To close the session, ask the participants what the core problem of the group is. Expectedly, one of them may identify financial management. This is your cue for the next discussion.

The Importance of Financial Management

Ask the participants what they understand of the word "financial management". Write their answers on the board. After a brief breeze through of the answers, post the visual aid below and proceed to discuss.

WHAT IS FINANCIAL MANAGEMENT

Finance – nagpasabot ug kuwarta

Management – nagpasabot ug maayong pagdumala

Sa ato pa, ang financial management nagpasabot ug maayong pagdumala sa kwarta.

Here, emphasize on the word definitions. For example – regarding finance, emphasize the ways by which money can be saved (eg. Unpaid labor as counterpart contribution, voluntary work, recycling). And finally, discuss the roles on management in the financial management sphere. You may add visuals as necessary.

1. PLANNING - know what are our resources and costs
2. ORGANIZING - know who will do what
3. LEADING - know who calls the shots
4. CONTROLLING - know that funds are safeguarded and controlled

Highlight the discussion this time on basic financial management concepts that are entirely based on the functions of management.

BASIC FINANCIAL MANAGEMENT FUNCTIONS

STAFFING	–	ang paghan-ay sa mga bulohaton ug sa mga mobuhat niini
ACCOUNTING	–	ang pagtala sa mga pinansyal nga transaksyon
FINANCIAL ANALYSIS	–	ang pagsusi ug pagtuki sa mga kuwarta ug kapaninguhaan
INTERNAL CONTROL	–	ang paghan-ay ug mga polisiya ug pamaagi aron mapaniguro ang seguridad sa panalapi sa organisasyon

"Each of these basic concepts will be dealt with in the training and we shall start with the first concept which is staffing."

Structuring the Finance Function

1 hr. 30 min.
(Day 1: 2:30 – 4:00)

Rational Objectives	Experiential Objectives
At the end of the session, participants will have been able to:	
Understand the basic principles in finance function structuring Identify accountable parties and their lines of relationship Define roles and responsibilities of persons within the organization determine control patterns to ensure that organizational assets are protected	Appreciate the true meaning and importance of accountability for financial management Deepen their insight on accountability and financial control Develop an awareness and resolve to practice accountability and financial control

Materials Needed:

- *Easel sheets*
- *Pentel Pens*
- *Masking Tape*
- *Templates for the session*
- *Proposed Organizational Structure Handout (Section 1)*

Analysis of Structures and Functions

First ask the participants to group according to the people's organizations where they belong. Then let them draw an organizational structure of their organization, more particularly that which relates to their water user associations.

After they have drawn their organizational structure, ask them to define the financial functions of each of the person indicated in the organizational structure. By financial function, we mean that responsibility that involves money or money substitutes.

Call in at least two reporters to report their work while request the others to post their work on the walls. Do not yet give comments on the reports, withhold them after the two reports were done. Then ask the participants the following guide questions;

What are the similarities noted?

What are the differences?

Who collects? Approves? Authorizes disbursements? Issue receipts? Deposit money?

Who records? Analyzes reports?

Who audits? Who ensures that policies are followed?

As you ask these questions, bear in mind the CARE principle (custody, authorization, recording and execution). Also, note of the deficiencies in the structures they have presented.

As a follow-up, present the following template;

NGANONG KINAHANGLAN ANG USA KA MAAYONG STRUKTURA?
1. Maayong pag-apod-apod sa mga bulohaton
2. Pagtino kinsa ang angayan duolon alang sa usa ka transaksyon
3. Pagpaniguro sa seguridad sa mga kwarta ug kabtangan sa organisasyon
4. Mapasayon ang pagkab-ot sa mga tumong ug tinguha sa usa ka asosasyon o organisasyon
5. Mahapsay ang mga pamaagi ug proseso sa pagpadagan sa negosyo

Basic Principles in Organizational Structuring of the Finance Function

Tell the participants that structures are important. Also, make sure that you emphasize the negative effects of not having a structure at all, which may include, among others, the following;

* It generates confusion for both leaders and members
* Good governance is a function of how the ethical standards of honesty, truthfulness, loyalty, hard work and integrity are practiced
* As a public servant, it is our concern to practice good governance

Proceed by posting this template:

ACCOUNTABILITY
The requirement to act responsibly and report, To act and give account This means more than responsibility

Explain the meaning of accountability, noting how it deepens in meaning if one's action requires some discretion.

Take note of the following points:

* If one's actions are simply to obey instructions, accountability requires only the report that these instructions have been obeyed (where, when and how).
* If our actions require us to exercise some discretion (to make choices, to take decisions), accountability requires also an **EXPLANATION**. We need to explain and not only report our actions.

Post and explain this template:

We are accountable:
• For the **results or outcomes** of our actions • For the **professional standards** of our work • For the **effective use of resources** including financial resources

What and Who Defines Accountability?

Ask participants as to who defines accountability, note of their answers. Tell them that in most cases, it is the organization that defines accountability based on their;

Constitution and by laws
Organizational Structure
Manuals – human resource, operations, accounting manual

Tell the participants that PEF is finalizing the accounting manual for their proposed use.

This time present the following template;

4 DIMENSIONS OF FINANCIAL ACCOUNTABILITY:	
CUSTODY	– ang naggunit sa kuwarta, mga resibo, mga libro, mga kabtangan sa organisasyon
AUTHORIZATION	– ang mo-aprubar sa mga pagdawat o paggasto sa mga panalapi
RECORDING	– ang motala sa mga nagkadaiyang transaksyon ngadto sa mga books of accounts.
EXECUTION	– ang mobuhat sa transaksyon

Explain the above template by giving concrete examples in the context of a water systems organization.

CUSTODY – the keeper of the keys to the tapstand, the cashier, etc.

AUTHORIZATION – the one who approves the disbursements – usually the PO chairman

RECORDING – the bookkeeper

EXECUTION – the one who conducts the meter reading, the purchase of construction materials.

Finally, discuss the proposed organizational structure in Section 1.

Basic Accounting Terminologies and Books of Accounts

1 hour
(Day 1: 4:00 – 5:00)

Rational Objectives	Experiential Objectives
At the end of the session, the participants should have been able to;	
Understand basic accounting terminologies and books of accounts Differentiate terms and concepts from each other Learn the implications of each terminology to the business environment	Get excited in actualizing learnings through practical hands-on exercises Feel convinced that accounting is a very important aspect in financial management

Materials Needed:

Session Templates
Colored Papers marked with CRJ, CDJ, GJ, and GL
Pool of transactions to use in the exercise on where to record

Basic Accounting Terminologies

Tell the participants that what they are about to learn may be very unfamiliar but is easy to understand, given the required attention. Your discussion sheet will follow the path stated below:

The Need for Financial Information

Information is paramount in business. To this extent, financial information is very important. Financial information is vital in deciding how much water fees to set, how much money is available, how expensive is water generation, and so on.

Financial information can not be had, however, without proper accounting.

FINANCIALDATA

FINANCIAL INFORMATION

FINANCIAL DECISION

This process is hastened with data is processed to become information and information is analyzed to guide decisions.

Stress that accounting is necessary in order to process data or information and to analyze information to aid in decision-making processes.

Stress further that financial data is a result of a financial transaction – the beginning point in accounting. Transaction, in this respect, can be defined as an exchange of equal values where there is value received, and value parted with. Ask participants for examples, in this respect.

Finally, state that in every transaction, there is always a value received, and a value parted with or given.

Basic Accounting Values

Ask participants if regarding their understanding of the word "values". Also, ask them what they understand of the term accounting values.

With their answers as jump-off points present the following template;

5 BASIC ACCOUNTING VALUES		
ASSET	–	economic resources (kapaninguhaang pinansyal)
LIABILITY	–	economic obligations (mga utang)
CAPITAL	–	owner's equity (gipanag-iya sa owner)
REVENUE	–	sales/service income (halin)
EXPENSES	–	costs of generating sales/service income (galastuhan)

Give as many examples as you can. Then make the participants give their own.

Explain the equation:

ASSETS = LIABILITIES + CAPITAL

ASSETS – LIABILITIES = CAPITAL

ASSETS – CAPITAL = LIABILITIES

Give concrete examples based on a personal and a water system context.

Also, explain the next equation;

REVENUE – EXPENSE = PROFIT/LOSS

That if R>E = profit and
If R<E = loss

Relate the revenue equation to the basic accounting equation presented above.

Basic Books of Accounts

Tell the participants that recording is very important in accounting since it forms part of the whole accounting cycle. To expound this concept, define accounting as follows;

ACCOUNTING

The art of recording, classifying, summarizing, in a significant manner and in terms of money, transactions, and events, which are in part at least of a financial character and interpreting the results thereof.

Tell the participants that this is a formal definition of accounting and is written in English and your job is to translate it, not directly, but contextually into the local dialect.

From this, point out the 4 basic phases of accounting:

Recording
Classifying
Summarizing
Interpreting

Explain this four concepts in their most understandable terms by providing concrete examples.

Proceed by saying that recording is the first phase and in this phase there is a need to use books to where transactions are recorded. Also, mention that in the summary phase, another type of book is used.

After this, explain the basic books of accounts:

BASIC BOOKS OF ACCOUNTS

Cash Receipts Journal – dinhi irecord ang tanang kuwarta nga nadawat sa asosasyon

Cash Disbursements Journal – dinhi irecord ang tanang kuwarta nga gigasto sa asosasyon

General Journal – dinhi irekord ang mga transaksyon nga wala nagdawat o nagpagawas ug kwarta

General Ledger – dinhi sumadahon ang mga entrada sa CRJ, CDJ, ug GJ para maandam sa paggama ug trial balance

Explain extensively the concepts by giving examples. To facilitate discussion of understanding, call four participants to line up in front and give them a card each. The cards should be labeled CRJ, CDJ, GJ and GL.

Point out also that the first three belong to the recording phase, while the last one belong to the classifying phase of accounting.

Ask all other participants to stand. Tell them that you will have a game wherein you will read a particular transaction and they are to line up in front of the person who holds the card to which the transaction must be recorded. Have a ready pool of transactions. Stop this game when you are satisfied with their answers.

Basic Accounting Review

4 hrs
(Day 2: 8:30 – 12:30)

Rational Objectives	Experiential Objectives
At the end of the session, the participants should have been able to;	
Understand basic accounting terminologies, books of accounts, and financial statements Actually prepare books of accounts and financial statements Learn basic financial analysis skills	Get excited in actualizing learnings through practical hands-on exercises Feel convinced that accounting is a very important aspect in financial management

Materials Needed:

- *Session Templates*
- *Journal Sheets*
- *Ledger Sheets*
- *Worksheet*
- *Water System Problem (Section 2)*
- *Calculators (please advise participants to bring in advance)*

Opening of Day 2 and ORID Recap

A member of the training team will conduct a brief ORID recap by asking the following questions;

O - What topics did we discuss yesterday?
R - Which among the topics was the easiest? Hardest? Like? Dislike?
I - What are the significant learnings that we had from yesterday's sessions?
D - How do we apply these in our cooperative/association?

The Accounting Process

Start your discussion by telling the participants that accounting is a process with distinct steps in progression. Tell them also that for purposes of the discussion, the steps are simplified to suit their needs. Refer them back to the 4 major phases discussed earlier and go back to it as you discuss the following steps;

Simplified Basic Accounting Process:

Analysis of Transaction
Journalizing in Special Journals (CRJ and CDJ)
Posting
Making of Trial Balance
Making of Income Statement
Making of Balance Sheet
Financial Statement Analysis

Explain each step one by one. This time, use the Water System Problem in Section 2

Follow through the discussion until the preparation of the basic financial statements – income statement and balance sheet. (This is the time that the worksheets and ledger will be used.) Please also include DEPRECIATION.
Introduce basic financial analysis after the preparation of the financial statements by using the following tools;

- analyzing income and expenses – highlight on the importance of gaining/attaining profit which can be done through revenue maximization and expense minimization
- vertical analysis - % of gross collection, expense % etc.
- ratio analysis – focus more on solvency and profitability ratios.

Closing of Day 1:

Ask participants what is their:

- most significant learning for the day
- hardest topic so far
- easiest topic

Basic Accounting Review - Practicum

4 hrs
(Day 2 – 1:30 – 5:30)

Rationale Objectives	Experiential Objectives
At the end of the session the participants will have been able to:	
Actualize learnings in basic accounting review through self-directed learning exercise	Get excited in actually solving a simulated problem exercise

Materials Needed:

Easel sheets
Pentel Pens
Masking Tape
Section 3 (Water System Problem 2)
Worksheets, journal sheets, calculators for participants

Introduction to Participant Workshop

Proceed to inform the participants regarding the following;

1. Each one of them will be given a problem sheet, 2 worksheets, a journal sheet, a ledger sheet and two pieces of bondpaper.
2. On these papers they shall write their answers to the problem sheet.
    1. Worksheet 1 – CRJ
    2. Worksheet 2 – CDJ
    3. Journal Sheet – GJ
    4. Ledger Sheet – GL
    5. Bondpaper 1 – trial balance
    6. Bondpaper 2 – income statement and balance sheet
3. One hour will be given for individual work (do not tell them that you will announce a group work later).
4. The rest of the hours will be done as group work per PO(announce this only after you have seen that all are answering the questions personally and are almost finished).

Valuing

At the end of the workshop, do some valuing by focusing on the things that they need to improve on based on workshop results. Reporting shall be done in the following manner:

5. One group reports on the CRJ and CDJ
6. One group reports on the GJ and GL
7. One group reports on the Trial Balance
8. One group reports on Income Stratement

9. One group reports on Balance sheet
10. One group reports on Financial Analysis

Regrouping may be done as well as assignments depending on the number of participants involved.

After each report, give the official answer and validate it with what the participants have done. Point out good as well as bad points.

Emphasize on the concept that things when started wrongly will produce a wrong output (garbage in, garbage out)

Closing of Day 1:

Ask participants what is their:

- most significant learning for the day
- hardest topic so far
- easiest topic

Accounting Policies and Procedures

2 hours
(Day 3 – 8:30 – 10:30)

Rational Objectives	Experiential Objectives
At the end of the session, the participants shall have been able to:	
Know the important policies and procedures in basic water system transactions	Realize the importance of the role of management in ensuring efficient controls
Learn the ways of ensuring smooth and efficient financial operations	Appreciate the responsibilities of the officers in ensuring that financial operations are carried out effectively and efficiently.

Materials Needed:

Easel sheets
Pentel Pens
Masking Tape
Templates for the session
Copy of Accounting Policies and Procedures (annex 5)

Opening of Day 3 and ORID Recap

A member of the training team will conduct a brief ORID recap by asking the following questions;

O - What topics did we discuss yesterday?
R - Which among the topics was the easiest? Hardest? Most liked? Least liked?
- What are the significant learnings that we had from yesterdays sessions?
D - How do we apply these learnings in our cooperative/association?

Follow the Leader

Tell the participants that you will have a game, and that is called "Follow the Leader".

Divide the whole group into 5 groups with at least 5 people each group. Tell them that the mechanics of the game is that, one leader shall be chosen from each group who shal be called to be given a set of 5 instructions for the group to follow.

Call the leader and give the instructions orally for 5 times only as indicated below:

Lakaw nga magtuyoktuyok

Kanta ug kasadya

Sayaw nga magluksolukso samtang maglakaw

Huboon ang sapatos o tsinelas

Lakaw padulong sa pultahan (make sure there are many doors, if only one, choose windows instead)

Tell the leader that he/she is not allowed to say anything other than the instructions.

Do not let the game go on too long, as there is much to cover.

This exercise is aimed at getting the group active, but it points to questions of policies and procedures – that when instructions are clear and communicated to people, best results are achieved. Post the instructions on the board after the game and ask a few questions:

R --- Unsay inyong gibati samtang nagdula dula ta?
--- Unsa may inyong gibati sa dihang miaction lang ug ahat ang inyong leader?
--- Unsay inyong gibati sa pagkahuman sa dula ug sa inyong pagkahibalo sa mga instructions?

I --- Unsay inyong nakat-onan o naamgohan si gihimo nga dula?
--- Unsa man ang relasyon sa dula sa inyong water association/project?

In your closing spiel of this activity, point out the following:

The game shows that policies and procedures are important to ensure effective and efficient operations of the organizations. It is also equally important that these policies and procedures are communicated to and understood by all. Further, emphasize the roles of management in ensuring adherence to policies.

Policies Versus Procedures

Compare and contrast the concept of policy with that of procedure. Say that policies are generalized statements to be followed while procedures are step by step instructions on how to concretely implement the policy.

Distribute the handout on proposed policies and procedures. Let the participants read these.

Discuss the essential policies and procedures contained in the manual.

Water System Rates

1 hr. 30 min.
(Day 3 – 10:30 – 12:00)

Rational Objectives	Experiential Objectives
At the end of the session, the participants should have been able to;	
At the end of the session, the participants should have been able to; Know the basic considerations in computing water system rates Understand basic principles governing water system rate computations learn actual rates computation	Be enlightened with the various learnings regarding the basic considerations in computing water fees Exhibit eagerness and enthusiasm in actualizing learnings

Materials Needed:

- *Easel Sheets*
- *Pentel pens*
- *Masking tape*
- *Copies of case studies for every participant*
- *Templates for the session*
- *Water Rates Computation (Annex 6)*

Basic Principles Governing Water Rates Computation[1]

Water rates are instruments for recovering the cost of providing adequate water service to customers and must reflect not only the fixed costs of the supply system, but also the operating expenses. The cost of service should be equated with revenue requirement for the purpose. Nevertheless, rates should satisfy the following general requisites: (Post only the words, and provide the explanation)

Adequacy. The revenues generated out of a water-rate schedule must be sufficient to meet the various elements of revenue requirements. The revenue should be enough to promote the organization's growth and ensure its viability.

Public Service. The rates must be set at a reasonable level to reflect public service. Higher rates will have some effects on consumption.

Equitability and Socialized Pricing. The rates must be able to cover the cost of providing the service and to equitably distribute the cost of service to all classifications and sizes of connection. Simply stated, higher levels of consumption would have higher unit costs.

Affordability Level. The rates must be kept affordable to low income groups

Enforceability. The rates must be fair and reasonable. They should be justifiable and acceptable to the public. This, in essence, is the rationale why rates are subjected to public hearing as a requisite for confirmation.

Water Conservation. The rates should promote an efficient allocation of water resources, thus discouraging unreasonable and wasteful water usage.

1 Some information coming from LWUA Water Rates Manual

Water Rate Concepts

Discuss the following concepts in relation to water rates with emphasis on the benefits of Full-Cost Pricing being the recommended pricing method in the earlier training on operations management.

1. FULL-COST PRICING

   Full cost pricing means establishing a price per unit of water (per cu.m.) that covers all the costs involved in producing and delivering water to the customer.

   There are several reasons why full-cost pricing is used. First, it is the fairest way of charging for water. The price tells the customer what it costs to deliver the water to a house or place of business.

   Second, knowing that everyone must pay the full price, customers will have a tendency not to waste, and therefore, full-cost pricing acts as a conservation measure.

   Finally, water income will cover expenditures plus provide extra funds for emergencies and small additions or replacements of the system. In all likelihood the accounting system may need to be updated to show true expenses, public meetings may be necessary to explain the rates and the system's operation, and meters may have to be installed.

   To charge the total cost of water to the customers as fairly as possible, the system must be 100 percent metered. That means every service or customer must have a meter, and there must be a master meter on the outlet of each source of supply to show how much water was provided. If some customers are unmetered, a flat rate must be incorporated as part of the total rateschedule.

2. RATE STRUCTURE

   A basic rate structure should be made up of two parts. The first part, the base rate, is a charge per customer to recover fixed expenses, including the cost of debt service, reserve requirements, and capital improvements. This charge guarantees enough income to meet the utility's basic costs during periods of low water sales due to drought or other reasons.

   The second part, called the unit rate, is a charge per unit of water sold to cover the cost of operation, maintenance, and administration.

   With this two-part structure, all customers share equally in the basic costs of the water system and each pays only for the water used.

   It is important to note that a rate schedule that shares the fixed cost equally among all customers, regardless of how much water each uses, is fair only when the demand by all customers is relatively uniform (1/2 inch or 3/4 inch meters, for example).

Customers with greater demand who require larger meters need to have an increased "base rate". The increase is calculated using an equivalent meter and service ratio.

a. Determining a base rate to cover fixed expenses. The base rate should cover debt service (repayment of all loan principal and interest payments, capital expenditures (capex), and a reserve. No matter how fair the rates are, sudden large increases upset customers and raise questions about the operations of the system. Income and expense needs may be projected for three to five years. Good practice calls for a yearly review of income and expenses to determine if the rate structure is still satisfactory or needs adjustment.

   If there exists a 10 to 15 percent difference between water produced and water sold (as a result of leaks, unauthorized use, and so forth), there is the need to address the problem. That certainly is the case in the example where the difference

3. EQUIVALENT METER AND SERVICE RATIO

   When there is a number of customers that require considerably more water than residential customers, but still do not use a major portion of the system capacity, it may be necessary to use an equivalent meter and service ratio in establishing the water cost charge.

4. UNMETERED RATE

   If the water system has metered and unmetered customers, the utility must have a rate for both types of customers. In calculating unmetered rates, consider that:

   Unmetered rates should reflect the fact that these customers generally use more water and, therefore, the use estimate can be adjusted upward. Waste can be a major cost problem.

   Customers on unmetered rates do not require meter maintenance and meter reading costs and this can be a savings.

Discuss the following common rates structures applicable to small water systems. At the end of the discussion make the participants identify which of the following structures is most applicable to organizations like theirs.

COMMON RATE STRUCTURES

Flat Rate / Fixed Rate Structures

Under this rate structure, your customers pay the same amount regardless of how much water they use. A flat rate/fixed fee structure may make sense for very small water systems whose customers all use about the same amount of water. It can save your system the cost of installing meters, which are necessary when implementing a rate structure that is based on water consumption. If the cost of installing meters will far outweigh the benefits of having them in place, this may be the best option for your system, for the time being.

However, in times where water use is higher than average, your system will not be generating the additional revenue needed to keep up with higher demand (e.g. additional treatment costs). In addition, this rate structure offers no incentive for customers to conserve water. Despite the cost, meters are a worthwhile long-term investment.

Uniform Rate Structure

This uniform rate structure is similar to the flat rate/fixed rate structure, but is based on customers' water consumption and requires meters. Under this structure, customers are charged a uniform rate per unit of water (e.g gallon, hundred cubic feet) regardless of the amount of water used. This rate structure can also include fixed service charge. Uniform rate structure are most appropriate for systems whose customers have similar water use partterns.

This rate structure can guarantee a stable revenue stream for your system and can help encourage conservation because the average cost of water does not decline as use increases as it does with fixed fees or decreasing block rates, discussed below. It is fairly easy to implement and easy for customers to understand.

Decreasing Block Rate Structure

Under this rate structure, customers are charged lower rates per unit of water for successive blocks (fixed quantities). As with uniform rates, systems may charge a fixed fee in addition to the decreasing block rates. This rate structure is especially beneficial for industrial or commercial customers who use large amounts of water.

However, this rate structure can be difficult to implement and offers little incentive for customers to conserve water. In addition, it may result in insufficient revenue for the system if demand is unexpectedly high or an unanticipated future water need arises. A system must also have meters in place in order to implement this rate structure.

Increasing Block Rate Structure

Under this rate structure, customers are charged higher rates per unit of water for successive blocks (fixed quantities). Systems may charge a fixed fee in addition to the increasing block rates.

This rate structure sends a strong signal to customers about the value of the service you are providing and offers the most incentive for customers to conserve water. The reduction in water use that conservation brings can ease any potential strains on system infrastructure, potentially postponing or eliminating the need for expensive upgrades or new equipment. This rate structure's emphasis on conservation is also beneficial for systems with a limited water source or high treatment costs. The increasing block rate structure does require meters.

Seasonal Rate

A rate varies depending on the time of the year. Seasonal rates can be used in conjunction with any rate structure, including flat rates and uniform, decreasing, or increasing block rates

Strategic Plans should be flexible to make them adaptable in response to unexpected changes.

Present the sample computation format used in the earlier training as a means to level off with participants who have not attended the earlier training and to emphasize full-cost pricing or the full-cost recovery method. Walk the participants through the computation process and explain how the data used in the computation were derived. Regardless of the structure used, stress that they should consider all the costs in determining how much revenue they need to raise from water tariffs. Present sample computations applying the different rate structures using figures from the earlier computation sample of full-cost pricing.

Finally end the session by emphasizing to them that recovering costs should not be the only consideration in choosing the rate structure. The following should also be considered:

- Rate Stability – Customers are more likely to pay for rate increases if their rates are generally stable. Most systems know that the worst thing they can do is maintain a stable rate for many years, then increase it by 10% or more. A single, large increase can lead to "rate shock' and opposition to the increase. It is far better to increase rates by 2% per year for 5 years than 10% once every 5 years.

- Rate Predictability – As the manger of a small water system, you need to know how much revenue you expect to take in next year and in the years to come. However, predicting revenue can be difficult, as water use can vary from year to year. Water use can increase significantly during a dry year and decrease during a wet year. If you promote conservation, you may see a reduction in water use, requiring a rate increase. This lack of predictability should not discourage you from experimenting with rate structure that promotes a valuable public program (like conservation). Instead, you should aim to generate and keep sufficient reserves so that your system can survive a significant decrease in water use.

- Number of Customers – If your system serves fewer than 500 persons, the simplest approach to rate setting might be to take the revenue you need to raise and divide it more or less equally among your customers. If you server more customers you might choose an alternative rate structure, e.g increasing block rates

- Customer Classes – Some systems may serve only residential customers while others also serve industrial, commercial or agricultural customers. The cost of servicing these customers may be different as well. You may want to use different rates and rate structures for different classes of customers in order to meet their specific needs

- Water Use – Examine your customers' water use habits during peak and off-peak seasons. If most of your customers use roughly the same amount of water, a flat fee might make the most sense for your system. If your customers use significantly different volumes of water, you should consider charging for the amount of water used.

  Water is a scarce commodity. You can structure rates so that they send a 'price signal' to customers and encourage conservation. Customers who recognize the value of the service you are providing will be more likely to use that product in a way that reflects its true value.

- Customer Needs – There may be differences among customers within a class that affect the cost of providing water service to them or their ability to pay for that service. For example some residential customers may have low fixed income and therefore may have difficulty paying their water bills. Faced with these issues, you may want to consider rate structure that allow for different rates for customers with different needs within a single customer class.

Graduation and Closing

30 minutes
(Day 2 – 12:00 – 12:30)

Rational Objectives	Experiential Objectives
At the end of the session, the participants should have been able to;	
Diagnose present systems where corrupt practices may possibly occur Draft preventive, detective, and corrective measures for corrupt practices Formulate an ethics promotion plan for every department Articulate commitment for the implementation of the formulated plans	Feel the importance of situational analysis in solving systemic organizational problems Exhibit a sense of responsibility over organizational operations of their respective work areas Appreciate the value of collective approaches in promoting accountable governance

Materials Needed:
Evaluation Sheet
Certificates of Participation

Course Evaluation

Distribute the training evaluation sheet. Ask participants to answer honestly. After collecting the sheets, do an ORID recap as indicated below;

ORID RECAP:

Ask the participants the following questions:

- **O** - What word or phrase can you remember from our training? What activities? Exercises?
- **R** - What among the activities did you like? Were excited about? Didn't like? Got bored?
- **I** - Which among the topics discussed do you think is most important? Least important?
- **D** - What will you do now with the learnings that you got from this training when you go home? How will you apply them to your organization?

Distribution of Certificates and Closing Remarks

Ask a PEF representative to help you out in distributing the ceritificates. You may use an appropriate method as can be allowed by the time available. Finally, thank the participants for their active participation in the training. Call in a PEF representative for the closing remarks.

ANNEX 1: WHAT WENT WRONG

Ang katilingban sa Nahubsan usa sa mga pobre kaayo nga baryo sa Lungsod sa Napiot. Ang kalsada gikan sa sentro, guba ug pipila lamang ka mga balay ang naabtan sa kuryente tungod sa kamahal sa wiring kay layo man kaayo ang barangay sa mga libre nga poste sa ILAW Electric Cooperative. Walay clinic sa barrio ug ang mga lumulopyo nagsalig lamang sa mga BHW. Hinoon, adunay usa ka primary school diin nagtungha ang mga bata. Ang mga grade 5 ug grade 6, kinahanglan na molakaw ug mga 5 ka kilometro aron sila makatungha sa kompleto nga elementary school sa Buswac.

Apan ang kanunay nga mulo sa mga tagibaryo mao ang kakulang sa limpyong tubig. Tinood, daghan man ang mga tinubdan apan kini layo sa mga balay. Kinahanglan magbaktas pa ug mga 2 ngadto sa 3 ka kilometro aron makakawos ug tubig ilimnon. Ang pipila sa mga naahan sa barangay adunay ilang mga tangke sa tubig ulan apan halos tanan, nagsalig gayud sa tinubdan. Ang BHW nga si Luring, kanunay gayud nga magbanha mahitungod sa tubig, ilabina kay nahibaw-an niya gikan sa istudyo sa usa ka propesor sa unibersidad sa syudad nga adunay fecal colliform ang tubig, o mga indikasyon nga adunay nasagol niini nga hugaw sa tawo o hayop.

Nakadungog si Luring nga adunay usa ka NGO, kun non-government organization, nga gihinganlan ug PEF nga nitabang sa barangay sa pikas lungsod sa Buros aron mahipno ang ilang panubig. Busa inubanan sa ilang Kapitan, si Kapitan Inggo, miadto sila sa PEF aron magpakisayod.

Pilpila ka bulan sukad niadto si Luring ug Kapitan Inggo sa PEF, ug human sa pila ka bulan sab nga pagpangandam sa project proposal ug uban pang mga gikinahanglang dokumento alang sa ilang pag-apply sa funding sa PEF, naapprove ra gayud ang project. Gipadad-an sa PEF ug engineer and Nahubsan, si Engr. Tubo, aron motabang kanila sa pagplano, pagtukod sa tangke ug pag-layout sa mga pipeline. Nagpadala sab ang PEF ug mga tawo nga motabang sa ilang organisasyon pinaagi sa mga training. Human sa unom ka bulan, nahuman na gayud ang level II nga water system sa Nahubsan nga adunay 8 ka tapsand alang s 8 usab ka sitio. Ang matag tapstand adunay 5 ngadto sa 8 ka mga pamilya.

Ang usa sa mga propesyonal nga gipadala sa PEF makusganon nga miingon nga ila gayud nga ipatuman ang ilang maayong pagpangolekta sa bayad. Pila ka semana, nagbayad ang mga pamilya sa sakto hangtud nga si Botsoy, dili na mobayad. Si Botsoy, usa ka barangay kagawad ug press relation officer usab sa Nahubsan Water Users Association, ang organisasyon nga ilang gitukod para modumala sa programa sa tubig. Sa matag kolekta ni Daling, ang kolektor sa Tapstand 6 diin apil si Botsoy, sige lang siya nga unyaunyaon, ug kay maikog man lagi si Daling kay kagawad man lagi si Botsoy, niundang na siya sa pagsuna. Nahitabo kini sa dihang giingnan si Daling ni Botsoy, "Gatuo ba jud ka Daling nga wa koy kwarta ihatag nimo? Pila ra gud nang bayara, kinse ra man na?". Bisan sa pagkatinuod, sa pagkahinumdum ni Daling, singkwenta na ang utang ni Botsoy. Apan lagi, kay iyang nawala ang iyang notebook diin nahasulat pila na ka container ang nakuha ni Botsoy, dili siya makalalis niini.

Nagsugod na usab nga ang ubang mga pamilya sa paglimotlimot sa ilang bayronon. Ang uban, moingon ni Daling "Paningli sa si Botsoy! Kung mobayad si Botsoy, mobayad sab mi." Wala intawn nahimo si Daling busa iya kining gipasang-at nga problema sa assembliya, diin didto nanuyo si Botsoy. Tulo ka punto ang iyang gipakadak-an sa dihang gisuna siya ni Kapitan Inggo nganong wala na siya magbayad. Una, miingon siya nga libre ang pagtukod sa tangke ug sa mga tapstand kay kini hinatag man. Ikaduha, ang barangay mihatag ug counterpart. Ikatulo,

siya mismo miboluntaryo sa paghan-ay sa mga tubo ug pagtukod sa tangke. Ang tanan libre, nganung kinahanglan man nga mobayad ang mga tawo nga wala na man gani panud-an, mao kini ang iyang punto.

Dihadiha, mitingog usab si Pekto, ang uyoan ni Luring. Miingon siya nga kung mao man gani na, moundang na sab siya pagbayad kay ang iyang amahan man gani ang tag-iya sa yuta sa tinubdan sa tubig. Nabanha ang mga tawo ug mura ug naimpluwensiya kaayo sila sa mga isturya ni Botsoy, ug murag ang tanan, nakadesider na na di na mamayad. Apan gipasabot sila ug maayo sa Kapitan nga kinahanglan mobayad aron adunay imentinar sa mga linya ug ipahalipay sa mga meter reader ug collector, ug usab sa regular nga water testing sa IPHO.

Human sa assembliya nihinay ang koleksyon, hangtud nga pipila na lang gayud kaayo ang mibayad. Samtang naghinuktok ang Kapitan, niabot si Luring nga naghilak. Si Luring, mao ang tresurera sa water association sukad nga natukod kini kay sila man ni kapitan ang naningkamot kaayo sa pagapply ug funding.

Nitaho si Luring nga naglalis sila ni Taboy nga mao ang presidente sa association kay dili na siya mohatag ug kwarta niini. Nanuyo si Taboy sa dihang iya kining gipaninglan sa mga resibo sa mga kwarta nga gipangayo niini nga mokabat na ug usa ka libo. Ingon si Taboy nga iya kining gamiton sa pagpalit ug dugang pa nga materyales alang sa tapstand 7 nga kunu naguba tungod kay wala kaayo maayo pagkatrabaho. Apan adunay nakataho ni Luring nga wala man kunuy guba ang tapstand 7. Ang nakamaot pa gayud niini kay dili na moangkon si Taboy nga nakakuha siya ug kuwarta ni Luring kay wala siyay gipirmahan. Tinood, gisulat ra ni Luring sa notebook ang mga gikuha ni Taboy ug wala na siya magpapirma tungod sa iyang pagsalig niini.

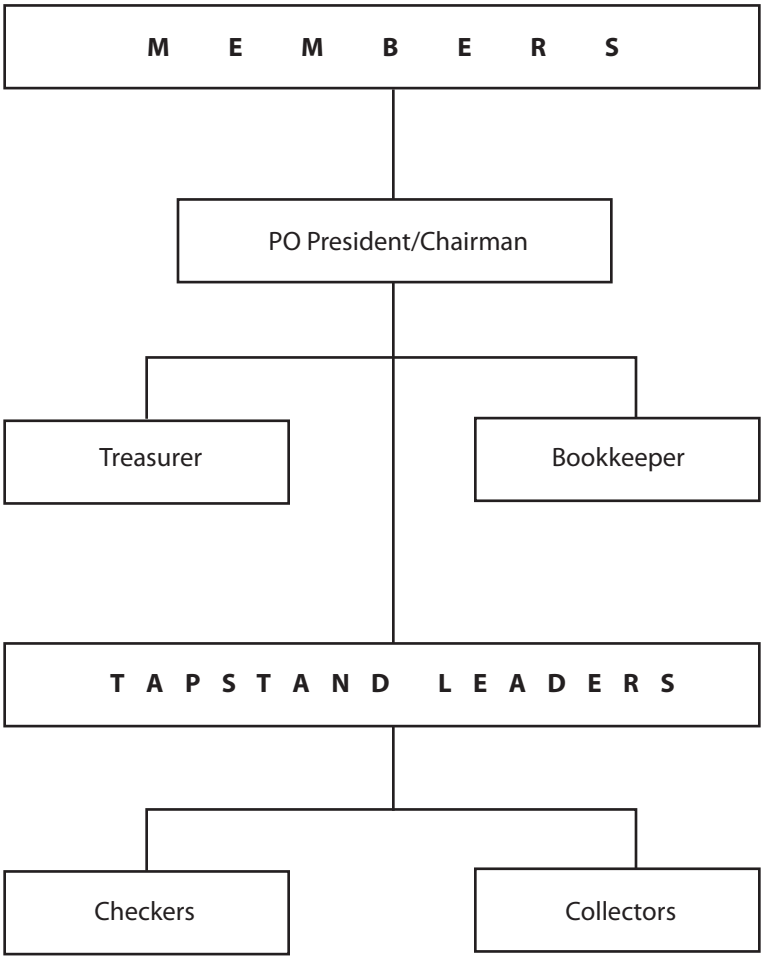
Naghilak nga giasoy ni Luring ang iyang problema. Wala na siya kahibalo kung unsaun niya pagsulbad kining hitaboa kay ang Tapstand 5 nga lider moingon gyud nga gihatag niya ang bayad sa 2 ka bulan sa anak ni Luring nga kinamagwangan. Apan ang anak ni Luring, moingon gyud nga wala siyay nadawat. Nagduda si Luring nga basin gihuboghubog niini ang kwarta labi na nga gikadungog na sa ilang barangay nga palahubog kini iyang anak ug usahay mogamit sa druga.

Ang Tapstand 6, nihangyo nga pabutangan ug mas lig-on nga padlock ang ilang metro ug ang ilang tapstand box. Apan walay ikahatag nga kwarta si Luring kay tua na lagi tanan ni Taboy.

Naglingolingo si Kapitan Inggo. Sa iyang hunahuna, samot na gyud nga dili mamayad ang mga tawo. Wala siyay mahimo kundili mangagho na lang.

ANNEX 2: PROPOSED ORGANIZATIONAL STRUCTURE HANDOUT

Organizational Structure



MGA BULOHATON UG RESPONSIBILIDAD

PO Level

President/Chairman

Ang PO Chairman/President mao ang:

Mag monitor sa general nga mga operasyon, mga kalihukan ug mga transactions sa PO sa pagtukod sa water project
Mag apruba ug naa'y mga request para magpagawas ug kwarta
Mo-authorize sa mga gastos para sa proyekto
Mo-authorize ug mupirma, kauban sa PO Treasurer, sa mga tseke (checks) para sa opisyal nga mga gastos ug bayranan

Mu-approve sa Time Card para andaman ug payroll sheet sa Bookkeeper
Mangayo ug binuwan mga reports gikan sa Treasurer ug Bookkeeper kada binuwan nga meeting sa PO
Mangayo ug reports kada tulo ka buwan mahitungod sa water project, para kini nga reports mahatag sa external auditors o third party nga naga-representa sa PEF
Maniguro nga ang tanang records sa treasurer ug bookkeeper sakto ug han-ay
Regular nga maga-check-up sa mga water groups ug sa mga tap stands
Mag monitor sa operations, billing, ug collection sa mga water groups
Mu-pahinumdom ug mu-encourage sa mga water groups sa saktong pag-gamit, maintenance, ug pagbayad sa water tariffs

Bookkeeper

Ang mga buluhaton ug responsibilidad sa Bookkeeper mao ang mga sumusunod::

Mag-rekord sa tanang transactions sa kooperatiba o asosasyon sa mga libro/books of account (CRJ, CDJ, GJ, GL)
Mag-andam ug binuwan nga reports mahitungod sa mga transactions sa PO aron i-presenta sa binuwan nga meeting sa PO
Kada tulo ka buwan, mag-andam ug quarterly reports nga gikinahanglan para auditon ug inspeksyunon sa mga external auditors of third parties nga naga-representa sa PF
Mag-maintain sa books of accounts
Mag-susi sa liquidation nga ipasa kaniya
Mag-andam ug Payment Vouchers kung aduna'y cash refund
Mag-andam ug mga check vouchers ug cash vouchers para sa mga liquidation
Mag-andam sa payroll sheet
Magatago ug amping sa mga accountable forms and documents
Magatago sa mga documentary evidences kauban sa liquidation ug iyang i-file

Treasurer

Ang mga buluhaton ug responsibilidad sa Treasurer mao ang sumusunod:

Mag-record sa tanang transactions mahitungod sa kwarta sa Treasurer's Book o Cash Book
Mao ang magahawid ug ma-amping sa kwarta ug mga bankbooks
Mag-isyu ug Official Receipts sa tanang kwarta nga mosud sa PO
Mag-isyu ug tseke (checks) para sa mga Cash Advance Request/Forms nga gipang-aprubahan na sa Chairman/President
Kauban sa Chairman/President, mupirma sa mga tseke (checks) para bayad sa mga opisyal nga mga gastos
I-forward ang liquidation sa mga gastos, kauban ang Cash Advance Request/Form ug Canvass Form, ngadto sa bookkeeper
Magpagawas ug mga checks nga aduna na'y sakto'ng authorization
Mudawat ug cash returns, ug mag-isyu ug OR para kanila
Mubayad ug cash refund, basi sa hinimong Payment Voucher sa bookkeeper
Mudawat sa kinolekta sa collector ug kini iyang isyuhan gihapon ug OR
Mudawat sa Monthly Record of Water Usage Collections, kauban sa kinolekta
Ampingan ang kwarta hantod kini ideposito sa bangko

Foreman

Ang pwesto sa Foreman dili posisyon sa PO, kundi ang Foreman pili-on lamang para mahimong tagadumala sa water project. Apan, dako siya ug papel sa pagbuhat sa proyekto mao gi-apil siya ug lista dinhi. Ang Foreman pili-on gikan sa mga opisyales o miyembro sa PO ug ang sumusunod ang iyang mga buluhaton ug responsibilidad:

Siya mao'y tagadumala sa water project
Kinahanglan aduna siya'y sakto nga nahibaw-an mahitungod sa water project
Mu-request ug fund release para ipalit ug mga materyales ug uban pang gastos para sa proyekto
Mag-canvass sa mga presyo sa mga materyales usa siya mu-request ug fund release
Iyang responsibilidad ang mga gipamalit na nga materyales para sa proyekto
Siguraduon nga tanang materyales dili madaot ug dili makawat
Mag-isyu sa mga materials kung kini pagagamiton na
Mag-supervise sa paggamit sa mga materyales ug sa katibuk-ang mga panghitabo sa pagtukod sa water project

Tapstand Level

Tapstand Leader

Ang mga buluhaton ug responsibilidad sa Tapstand Leader mao ang sumusunod:

Siya ang magkubot sa yawe sa tapstand o water pump
Basahon niya ang reading sa meter sa dili pa paagason ang gripo ug inig human ug paagas niini aron matali ang konsumo
Susihon niya ug gakasibo ba o wala ang halin ug ang nahurot nga konsumo nianang adlawa ug pirmahan niya ang notebook sa checker kung sakto ang halin nianang adlawa
Susihon usab niya kung sakto ba ang binulan nga koleksyon nga ihatag sa collector ngadto sa PO treasurer
Sa dili pa mag-andam ug Monthly Record of Daily Water Tariffs Collections (Form 8) ang collector, susihon niya, uban sa checker ug collector, ug nagkasibo ba ang mga rekord sa duha
Mupirma siya sa Monthly Record of Daily Water Tariffs Collections kung sakto ang narekord nga kantidad sa collector
Magadumala sa paggamit sa tapstand
Mag-ukit ug disiplina sa mga miyembro ug manggagamit sa tap stand

Checker

Ang mga buluhaton ug responsibilidad sa Tapstand Leader mao ang sumusunod:

Siya ang mulista sa konsumo sa matag miyembro sa usa ka notebook
Siya ang maningil ug water tariffs sa mga miyembro sa ilang konsumo
Maningil dayon ug bayad sa dihang aduna'y mokuha ug tubig
Ilista ang gi-utang nga water tariffs, ug paninglon kini sa dili pa mahuman ang bulan
Ihatag niya ang inadlaw nag koleksyon sa collector ug mupirma siya sa Monthly Record of Daily Water Tariffs Collections (Form 8)
Sa dili pa mag-andam ug Monthly Record of Daily Water Tariffs Collections ang collector, susihon nilang tulo sa leader ug collector ug nagkasibo ba ang mga rekord niya ug ang mga record sa collector

Mupirma siya sa Monthly Record of Daily Water Tariffs Collections kung sakto ang narekord nga kantidad sa collector

Collector

Kolektahon niya gikan sa checker ang kita sa matag adlaw
Ilista ang inadlaw nga halin sa Monthly Record of Daily Water Tariffs Collections (Form 8) ug pirmahan kini nilang duha sa checker
Maghawid ug mag-amping sa kwarta sa dili pa kini i-surrender sa PO treasurer
Sa dili pa ipasa ang Monthly Record of Daily Water Tariffs Collections, susihon niya, uban sa leader ug checker, ug nagkasibo ba ang mga rekord niya ug ang mga rekord sa checker
Pirmahan niya, uban sa leader ug checker, ang total nga kantidad nga nakolekta sa bulan nga nakasulat sa Monthly Record of Daily Water Tariffs Collections inig human nila ug susi ug sakto ba nga kantidad iyang narekord
Ihatag niya ang Monthly Record of Daily Water Tariffs Collections sa PO bookkeeper
I-surrender niya ang binulan nga kita sa treasurer
Paga-taguan ug ampingan niya ang mga OR nga i-isyu sa treasurer kaniya para sa halin nga iyang isurrender

ANNEX 3: Water System Problem 1 (illustrative example)

Ang mga mosunod mao ang mga transaksyon sa Tubigan Water Users Association sa Septembre 2006

September 1, 2006	-	Nakadawat ug pondo gikan sa Peace and Equity Foundation, P 256,000
September 2, 2006	-	Nagwithdraw ug kwarta sa bangko, P 50,000
September 3, 2006	-	Nagpalit ug mga supplies sama sa ballpen ug mga libro nga gamitonon sa proyekto, P 500 (CV 01)
September 4, 2006	-	Nagbayad ug honorarium sa resource speaker sa gihimo nga seminar, P 3,000 (CV 02)
September 5, 2006	-	Refund sa pamasahe sa mga mitambong sa seminar, P 1,000 (CV 03)
September 6, 2006	-	Nagpalit ug mga materyales para makasugod na sa pagtrabaho sa proyekto, P 20,000 (CV 04)
September 11, 2006	-	Nagsweldo sa mga trabahante, P 5,000 (CV 05)
September 15, 2006	-	Nagboluntaryo ang tanang membro sa kapunongan (15 ka membro ang mitambong, P 200 ang pangayo sa mao nga lugar)
September 20, 2006	-	Nakadawat ug bayad sa tubig, P 5,000 (OR # 001)
September 25, 2006	-	Nagpalit ug mga gamit para pag ayo sa naguba nga gripo, P 200 (CV 06)
September 26, 2006	-	Nagbayad sa nag ayo sa naguba nga gripo, P 150 (CV 07)
September 27, 2006	-	Naglista sa mga mikalos sa tubig nga wala pa mobayad, P v500
September 28, 2006	-	Nakadawat ug bayad sa tubig, P 300 (OR # 002)
September 28, 2006	-	Nakolekta na ang listahan sa mga utangan sa tubig, P450 (OR # 003 - 008)
September 29, 2006	-	Koleksyon sa tubig gideposito sa bangko, P1,500
September 30, 2006	-	Nagbayad ug honorarium sa mga opisyales sa kapunongan, P 2,000 (CV 08)
September 30, 2006	-	Nagkwenta sa depreciation sulod sa usa ka bulan sa Pump Control House (Cost P16,000; Estimated Life 20 years)

Answer Key

1.	Cash in Bank	256,000.00	
	Grants- PEF		256,000.00
2.	Cash on Hand	50,000.00	
	Cash in Bank		50,000.00
3.	Supplies Expense	500.00	
	Cash on Hand		500.00
4.	Honorarium Expense	3,000.00	
	Cash on Hand		3,000.00
5.	Transportation Expense	1,000.00	
	Cash on Hand		1,000.00
6.	Construction Materials	20,000.00	
	Cash on Hand		20,000.00
7.	Labor	5,000.00	
	Cash on Hand		5,000.00
8.	Labor	3,000.00	
	Counterparts		3,000.00
9.	Cash on Hand	5,000.00	
	Water Tariffs Income		5,000.00
10.	Repair and Maintenance Expense	200.00	
	Cash on Hand		200.00
11.	Repair and Maintenance Expense	150.00	
	Cash on Hand		150.00
12.	Water Tariffs Receivable	500.00	
	Water Tariffs Income		500.00
13.	Cash on Hand	300.00	
	Water Tariffs Income		300.00
14.	Cash on Hand	450.00	
	Water Tariffs Receivable		450.00
15.	Cash in Bank	1,500.00	
	Cash on Hand		1,500.00
16.	Honorarium	2,000.00	
	Cash on Hand		2,000.00
17.	Depreciation Expense	66.66	
	Accumulated Depreciation		66.66

ANNEX 4: Water Systems Problem 2 (exercise/simulation)

1. September 1, 2006 - Nakadawat ug pondo gikan sa Peace and Equity Foundation, P 300,000
2. September 2, 2006 - Nagwithdraw ug kwarta sa bangko, P 70,000
3. September 3, 2006 - Nagbayad sa registration sa pagahimoon nga seminar P 2,000 (CV 01)
4. September 4, 2006 - Nabayad sa LBC sa pagpadala sa mga dokumento ngadto sa PEF, P 150 (CV 03)
5. September 5, 2006 - Refund sa pamasahe sa mga mitambong sa seminar, P 500 (CV 04)
6. September 6, 2006 - Nagpalit ug mga materyales para makasugod na sa pagtrabaho sa proyekto, P 30,000 (CV 05)
7. September 11, 2006 - Nagsweldo sa mga trabahante, P 6,000 (CV 06)
8. September 15, 2006 - Mihatag ang barangay ug balas isip kontibusyon sa maong proyekto (2 ka kubiko, 600/kubiko)
9. September 15, 2006 - Nagboluntaryo ang tanang membro sa kapunongan (10 ka membro ang mitambong, P 200 ang pangayo sa mao nga lugar)
10. September 20, 2006 - Nakadawat ug bayad sa tubig, P 5,000 (OR # 001)
11. September 25, 2006 - Nagpalit ug mga gamit para pag ayo sa naguba nga gripo, P 300 (CV 07)
12. September 27, 2006 - Naglista sa mga mikalos sa tubig nga wala pa mobayad, P 500
13. September 28, 2006 - Nakolekta na ang listahan sa mga utangan sa tubig, P450 (OR # 002 - 008)
14. September 29, 2006 - Koleksyon sa tubig gideposito sa bangko, P2,500
15. September 30, 2006 - Nagbayad sa honorarium sa mga opisyales sa kapunongan, P 2,000 CV (08)
16. September 30, 2006 - Nagkwenta sa depreciation sa tapstand sulod sa usa ka buwan (Cost 30,000; Estimated Life 20)

Answer Key

1.	Cash in Bank	300,000.00	
	Grants- PEF		300,000.00
2.	Cash on Hand	70,000.00	
	Cash in Bank		70,000.00
3.	Seminar Expense	2,000.00	
	Cash on Hand		2,000.00
4.	Postage & Communication	600.00	
	Cash on Hand		600.00
5.	Transportation Expense	500.00	
	Cash on Hand		500.00
6.	Construction Materials	30,000.00	
	Cash on Hand		30,000.00
7.	Labor	6,000.00	
	Cash on Hand		6,000.00
8.	Materials	1,200.00	
	LGU Counterparts		1,200.00
9.	Labor	2,000.00	
	Counterparts		2,000.00
10.	Cash on Hand	5,000.00	
	Water Tariffs Income		5,000.00
11.	Repair and Maintenance Expense	300.00	
	Cash on Hand		300.00
12.	Water Tariffs Receivable	500.00	
	Water Tariffs Income		500.00
13.	Cash on Hand	450.00	
	Water Tariffs Receivable		450.00
14.	Cash in Bank	4,500.00	
	Cash on Hand		4,500.00
15.	Honorarium Expense	2,000.00	
	Cash on Hand		2,000.00
16.	Depreciation Expense	125.00	
	Accumulated Depreciation		125.00

ANNEX 5: Accounting Policies and Procedures (from the draft manual)

ACCOUNTING POLICIES AND PROCEDURES

ACCOUNTING POLICIES AND PROCEDURES

Cash Receipts:

General Policies:

1. **Tanan** nga kwarta nga madawat o mosulod sa PO kinahanglan aduna gayud mga **dokumento isip ebidensya sa transaksyon** (documentary evidences). Busa, kinahanglan tanan nga kwarta nga mosulod sa PO isyuhan gayud ug Official Receipt (Form 2).

2. Tanan nga kwarta nga madawat ug mosulod sa PO kinahanglan marekord sa sakto nga Accounting Books.

   Bookkeeper - **Cash Receipts Journal**
   Treasurer - **Cash Book**

3. Ang treasurer mag-isyu ug **duha** ka kopya sa Official Receipt sa tanang higayon nga naa siya'y madawat nga kwarta paingon sa PO. Ang usa ka kopya muadto sa nagbayad, ug ang ikaduha **mahimilin sa booklet.**

4. I-forward sa treasurer ang booklet sa **bookkeeper para siya makarekord** ug cash receipts. Inig human ug rekord sa bookkeeper, iyang **i-uli** sa treasurer ang booklet.

5. Tanang kwarta nga madawat ibutang sa treasurer sa butanganan nga **dili mahilabtan** sa uban, hantod i-deposito kini sa bangko.

Procedures:

Ordinaryo nga transaksyon nga magdawat ug kwarta

1. Ang magbayad mohatag ug kwarta sa treasurer.
2. Dawaton ug **iphon** sa treasurer ag bayad.
3. Ang treasurer mo-isyu ug Official Receipt *(Form 2)* ug iyang isulat sa OR ang mga detalye sa kwarta nga nadawat.
4. Ang original nga kopya sa OR ihatag sa treasurer sa nagbayad o naghatag sa kwarta.
5. Ang ikaduha nga kopya sa OR ibilin sa booklet nga mahimilin sa treasurer.
6. Ang kwarta nga nadawat i-rekord sa treasurer ngadto sa **Treasurer's Book o Cash Book.**
7. I-rekord sa bookkeeper ang nadawat nga kwarta sa **Cash Receipts Journal (CRJ)** basi sa kopya sa OR nga nahibilin sa booklet.

Kwarta nga mosulod diresto sa account sa bangko

8. Kung naa'y kwarta nga madawat sa bangko, mag-isyu gihapon ang treasurer ug duha ka kopya sa OR. Ang usa ka kopya ipadala sa nagpadala ug kwarta, ug ang ikaduha mahimilin sa booklet.

9. I-rekord sa treasurer ang nadawat nga kwarta sa iyang Cash Book.
10. -rekord sa bookkeeper ang kwarta nga nadawat sa bangko sa CRJ, basi kopya sa OR nga nabilin sa booklet.
11. Kung naa'y **interest** nga madawat sa bangko, i-rekord kini sa treasurer sa **Cash Book.**
12. Kung naa'y interest nga madawat sa bangko, ang bookkeeper mag-isyu ug **Journal Voucher** *(Form 3)* ug dinhi niya isuwat ang mga detalye sa nadawat nga interest sa bangko. **Pa-aprubahan sa Chairman/President ang JV sa dili pa kini i-rekord.**
13. I-rekord sa bookkeeper ang nadawat nga interest sa CRJ.

Cash Returns

14. Ang **bookkeeper nga mao'y mudawat ug mu-check sa liquidation** mao usab ang mudawat sa cash return nga kauban sa liquidation. Iyang ihatag ang kwarta ngadto sa treasurer.
15. Ang treasurer mag-isyu ug duha ka kopya sa Official Receipt (resibo), ug iyang i-apil ug sulat ang "cash return" sa mga detalye sa OR.
16. Ang original nga kopyasa OR, ihatag sa nag-uli sa kwarta.
17. Ang ikaduhang kopya sa OR ibilin sa booklet nga mahimilin sa treasurer.
18. Ang cash returns i-rekord sa treasurer sa Cash Book.
19. Ang cash returns i-rekord sa bookkeeper sa CRJ, basi sa kopya sa OR nga nahibilin sa booklet.

Koleksyon sa mga Water Tariffs

20. Ihatag sa collector ngadto sa treasurer ang nakolekta niya nga water tariffs para sa tibuok nga buwan. (Patan-awon niya ang treasurer ug ang kantidad nga gihatag niya mao ba pod nga nakalista sa Monthly Summary of Daily Water Tariffs Collections, usa pa niya ihatag kini nga dokumento sa bookkeeper.)
21. Dawaton sa treasurer ang kinolekta sa collector, ug iyahang tan-awon kung ang kwarta nga gihatag sa collector tukma ba sa kantidad nga nakasulat sa Monthly Summary of Water Tariffs Collections *(Form 8)*.
22. Isyuhan sa treasurer ug Official Receipt ang collector.
23. Duha ka kopya sa OR iyang i-isyu. Ang original nga kopya iyang ihatag sa collector.
24. Ang ikaduha nga kopya ibilin sa booklet nga mahimilin sa treasurer.
25. Ang mga koleksyon i-rekord sa treasurer sa Cash Book.
26. Ihatag sa collector sa bookkeeper ang Monthly Summary of Daily Water Tariffs Collections.
27. Pirmahan sa collector ug sa bookkeeper ang Monthly Summary of Daily Water Tariffs Collections.
28. Ang koleksyon nga nadawat i-rekord sa bookkeeper sa CRJ, basi sa Monthly Summary of Daily Water Tariffs Collections ug sa OR nga nahibilin sa booklet.

Cash Purchases

General Policies

1. Kinahanglan nga tanang materyales nga paliton para sa proyekto aduna'y dokumentation ug aduna'y ebidensya.
2. Kinahanglan ang pagpalit ug mga materyales, aduna gayu'y approval ug authorization una.
3. Tanang mga materyales nga gipalit para sa proyekto bayaran pinaagi sa tseke (checks), ug ang check adto i-ngalan sa Supplier mismo.
4. Ang mga materyales nga pamaliton kadto ra nga nakalista sa Project Budget.
5. Kinahanglan aduna'y mag canvass sa mga presyo usa paliton ang mga materyales. Kinahanglan labing gamay sa 3 ka suppliers ang ilang pangayu-an ug mga presyo.
6. Kinahanglan, ma-rekord sa sakto nga Accounting Books ang pag palit sa materyales.

   Bookkeeper - Cash Disbursements Journal
   Treasurer - Cash Book

7. Kinahanglan nga sa sulod sa lima ka adlaw sukad napagawas ang kwarta o tseke, ma-liquidate na sa opisyal nga naga-request sa fund release ang kwarta nga nagasto para sa pagpalit sa materyales.

Procedures

1. Ang opisyal nga maga-request ug fund release para sa palitunon nga materyales, mangayo ug Cash Advance Request/Form (Form 9) ug Purchase Order (Form 16) Canvass Form (Form 10) gikan sa bookkeeper.
2. Kinahanglan mag-canvass siya una ug iyang fill-upan ang Canvass Form usa siya murequest ug kwarta sa treasurer.
3. Ang Canvass Form, Purchase Order ug Cash Advance Request/Form iyang ihatag sa treasurer.
4. Ang Canvass Form, Purchase Order ug Cash Advance Request/Form pa-aprubahan sa treasurer sa PO Chairman/President.
5. Kung aprubahan na kini sa Chairman/President, iya kining pirmahan ug suwatan nga "Approved".
6. Kung na aprubahan na sa Chairman/President ang fund request, mu-order na sila sa pinili nga Vendor/Supplier ug magsabot sila sa mga detalye sa transaksyon.
7. I-forward na sa treasurer ngadto sa bookkeeper ang Cash Advance Request/Form , Purchase Order ug Canvass Form nga gi-aprubahan sa Chairman/President.
8. Kung napahibaw na ang Supplier/Vendor ug naa na'y kasabutan, mag-andam na ang treasurer ug tseke/check para sa palitunon.
9. Ang tseke adto i-ngalan sa Supplier/Vendor, ug dili sa opisyal nga naga-request sa fund release.
10. Pirmahan sa Chairman/President ug treasurer ang check.
11. Mag-andam ang treasurer ug Liquidation Form para ihatag sa nag-request.

12. Pahibaw-on sa treasurer ang opisyal nga nag-request sa fund release nga ready na ang check.
13. Kuhaon sa opisyal ang check ug ang Liquidation Form (Form 14).
14. I-rekord sa treasurer ang nagawas nga kwarta sa Cash Book.
15. Pahibaw-on sa opisyal ang Supplier/Vendor nga angay na nga i-deliver ang mga materyales
16. Ihatag sa opisyal ang check sa Supplier/Vendor ining kadawat sa materyales.
17. Mangayo siya ug Official Receipt sa Supplier/Vendor sa mga gipamalit nga materyales.
18. Sa sulod sa lima ka adlaw, ang nagdawat sa kwarta mag-andam ug liquidation. Iyang fill-upan ang Liquidation Form sa mga detalye sa gi-gastuan sa kwarta, ug iyang ubanan kini sa mga documentary evidences ug uban pang supporting documents.
19. Ang liquidation maga-apil ug mga resibo ug uban pang mga dokumento nga mu-ebidensya sa pagpalit sa materyales. Kinahanglan ang katibuk-an nga kantidad sa kwarta nga gipagawas, suportado ug mga opisyal nga dokumento.
20. Iyang ihatag sa bookkeeper ang liquidation.
21. Checkon sa bookkeeper ang liquidation.
22. Kung han-ay ang liquidation ug wala na'y mga pangutana ang bookkeeper, iyang aprubahan ang liquidation.
23. Ang bookkeeper maga-andam ug Check Voucher (Form 4), ug dinhi niya isulat ang mga detalye sa nagasto nga kwarta.
24. I-rekord niya ang kwarta nga nagasto para sa pagpalit ug materyales sa Cash Disbursements Journal (CDJ).

Para sa mga Purchases nga di malikayan nga adto ingalan sa opisyales ang check:

Sunda ang *Cash Disbursements Procedures* para sa mga higayon nga *di malikayan nga i-ngalan sa opisyales o miyembro ang tseke/check (B)*. Apan may kausaban. Kinahanglan apilan ug *Purchase Order (Form 16)* ang request for cash release.

OTHER CASH DISBURSEMENTS

General Policies

1. Tanang mga gastuonon nga may kalabutan sa proyekto, nga gamitan ug kwarta kinahanglan gayud nga aduna'y approval ug authorization, kinahanglan ma dokumento-an ug aduna'y accounting, ug kinahanglan i-rekord sa sakto nga mga Accounting Books.
2. Ang tanan nga mga gastuonon nga may kalabutan sa proyekto bayaran lang pinaagi sa pag-isyu ug tseke (checks).
3. Ang tseke/check ingalan gayud sa Supplier.
4. Kung dili malikayan ug ingalan gayud ang tseke/check sa opisyal o miyembro sa organisasyon, kinahanglan duha ka tawo ang nganlan niini. Ug silang duha gayud ang mupirma usa mapulihan ug kwarta ang tseke/check. (Pay to the order of A and B, ug dili Pay to the order of A or B.)

5. Ang mga gastuon para sa proyekto, kadto ra'ng nakalista sa Project Budget.
6. Ang pag canvass sa mga presyo buhaton lang kung kinahanglanon pa, kini depende sa klase sa gastuanan. Sa mga gastuhanan nga dako ang kantidad (P3,000 ug pataas), kinahanglanun gayud nga mag canvass.
7. Kinahanglan, ma-rekord sa sakto nga Accounting Books ang pagpagawas sa kwarta para sa mga gastuhanan.

   Bookkeeper - Cash Disbursements Journal
   Treasurer - Cash Book

8. Kung aduna'y Advances to Officers, ang General Ledger magpakita ug tagsa-tagsa ka record sa mga tawo/opisyales/miyembro nga nahatagan ug kwarta
9. Inig liquidate na sa Advances to Officers, mag-entra ug adjusting entry ang bookkeeper sa General Journal.
10. Ang bookkeeper mag-andam ug Journal Voucher usa mag-entra ug adjusting entry. Ug kini pa-aprubahan sa Chairman/President.

Procedures

(a) Regular procedures

1. Ang opisyal nga mag-request ug fund release para sa mga gastuhanan para sa water project mangayo ug Cash Advance Request/Form (ug Canvass Form kung kinahanglanon kini) (Forms 9 and 10) gikan sa bookkeeper.
2. Ang Cash Advance Request/Form (ug Canvass Form) iyang ihatag sa treasurer.
3. Ang Cash Advance Request/Form (ug Canvass Form) pa-aprubahan sa treasurer sa PO Chairman/President.
4. Kung aprubahan na kini sa Chairman/President, iya kining pirmahan ug suwatan nga "Approved".
5. Kung na aprubahan na sa Chairman/President ang fund request, ihatag sa treasurer ngadto sa bookkeeper ang Cash Advance Request/Form (ug Canvass Form kung gagamit niini).
6. Mag-andam na ang treasurer ug tseke/check para sa gastuhanan.
7. Ang tseke adto i-ngalan sa Supplier/Vendor o sa tawo gayud nga bayaran, ug dili sa opisyal nga naga-request sa fund release.
8. Pirmahan sa Chairman/President ug treasurer ang check.
9. Mag-andam ug Liquidation Form (Form 14) ang treasurer para sa nag-request sa kwarta.
10. Pahibaw-on sa treasurer ang nag-request sa fund release nga ready na ang check.
11. Kuhaon sa opisyal ang check ug ang Liquidation Form.
12. I-rekord sa treasurer ang nagawas nga kwarta sa Cash Book.
13. Ibayad sa opisyal ang check sa Supplier/Vendor o tawo nga nagabaligya ug produkto o serbisyo.
14. Mangayo siya ug Official Receipt sa Supplier/Vendor o tawo nga gibayaran.
15. Sa sulod sa lima ka adlaw sukad na-release ang check, kinahanglan ma-liquidate na sa opisyal ang kwarta nga nagasto.

16. Ang liquidation maga-apil ug mga resibo ug uban pang mga dokumento nga mu-ebidensya sa pag-gasto sa kwarta. Kinahanglan ang katibuk-an nga kantidad sa kwarta nga gipagawas, suportado ug mga opisyal nga dokumento.
17. Iyang ihatag sa bookkeeper ang liquidation.
18. Checkon sa bookkeeper ang liquidation nga gipasa kaniya.
19. Kung wala na'y mga kulang nga dokumento ug wala na'y mga pangutana ang bookkeeper, iyang aprubahan ang liquidation ug i-file kini kauban sa Cash Advance Request/Form (ug Canvass Form kung gigamitan niini).
20. Ang bookkeeper maga-andam ug Check Voucher (Form 4), ug dinhi niya isulat ang mga detalye sa nagasto nga kwarta.
21. I-rekord niya ang kwarta nga nagasto sa Cash Disbursements Journal (CRJ).

(b) Kung di malikayan nga i-ngalan sa opisyales o miyembro sa PO ang tseke/check

22. Kung na-aprubahan na ang Cash Advance Request/Form, mag-andam na ang treasurer ug check.
23. Ang check ingalan sa opisyales o miyembro nga nag-request sa kwarta. Pero duha gayud ka tawo ang nganlan sa check.
24. Pirmahan ang check sa Chairman/President ug treasurer.
25. Ihatag ang check sa opisyales o miyembro nga nag-request niini.
26. Hatagan pod ang opisyal nga nag-request sa kwarta ug Liquidation Form.
27. I-rekord kini sa treasurer sa Cash Book ug iyang i-sulat sa particulars Advances to Officers, ug ilista ang ngalan sa opisyales o miyembro nga nagdawat sa kwarta.
28. Ihatag sa treasurer ang Cash Advance Request/Form ngadto sa bookkeeper.
29. I-rekord kini sa bookkeeper sa Cash Disbursements Journal sa Advances to Officers nga column, ug sa Particulars ibutang ang ngalan sa nag-request sa kwarta.
30. Sa sulod sa lima ka adlaw, ang nag-request sa kwarta mag-andam ug liquidation. Iyang fill-upan ang Liquidation Form, ug iyang ubanan kini sa mga documentary evidences ug uban pang supporting documents.
31. Ang liquidation ipasa niya ngadto sa bookkeeper.
32. Checkon sa bookkeeper ang liquidation nga gipasa kaniya.
33. Kung aduna'y cash returns, iyang ipasa sa treasurer ang kwarta. Kung aduna'y cash refund, mag-andam siya ug Payment Voucher (Form 5) ug iyang ihatag sa opisyal.
34. Dad-on sa opisyal sa treasurer ang Payment Voucher para ma-reimbursuhan siya.
35. Bayran siya sa treasurer ug papirmahon siya sa Payment Voucher.
36. Irekord niya ang cash refund sa Cash Book.
37. Kung wala na'y mga kulang pa nga dokumento ug wala na'y mga pangutana ang bookkeeper, iyang aprubahan ang liquidation ug iya kining i-file kauban sa Cash Advance Request/Form, Purchase Order ug Canvass Form.
38. Ang bookkeeper mag-andam ug Check Voucher (Form 4), ug i-file kini kuyog sa liquidation.

39. Ang bookkeeper mag-andam ug Journal Voucher (Form 3) para sa adjusting entry. Sa JV, iyang i-suwat ang mga detalye sa adjusting entry. Papirmahan niya sa Chairman/ President ang JV sa dili pa kini irekord sa General Journal.
40. Mag-entra ug adjusting entry sa General Journal ang bookkeeper. Sa GJ iyang i-debit ang tagsa-tagsa ka expense o gastos nga nabayaran, ug iyang i-credit ang Advances to Officers.
41. Ug mabalik na sa bookkeeper ang Payment Voucher nga pinirmahan na sa treasurer ug sa opisyal, i-rekord na sa bookkeeper ang cash refund sa Cash Disbursements Journal (CDJ).

(c) Bayad ug sweldo o labor

42. Kung sweldo o labor ang pagabayaran, kada kinsena, aduna'y opisyales o miyembro (posible nga ang Foreman) nga maghatag sa Chairman/President sa Daily Time Records (Form 11).
43. Aprubahan sa Chairman/President ang DTR ug kini ihatag ngadto sa bookkeeper.
44. Basi sa na-aprubahan nga DTR, ang bookkeeper mag-andam ug payroll sheet ug iya kining ihatag sa treasurer.
45. Ang treasurer mag-andam ug check para sa payroll. Ang check adto i-ngalan sa treasurer ug bookkeeper para silang duha magpabaylo niini sa bangko.
46. Pirmahan sa Chairman/President ug sa treasurer ang check.
47. Ang mga tawo nga bayaran ug sweldo o bayad sa labor muadto sa treasurer para kubrahon ang kwarta.
48. Ang mokubra ug sweldo o bayad sa labor mupirma sa payroll sheet.
49. Ang pagbayad ug sweldo o labor i-rekord sa treasurer sa iyang Cash Book.
50. Ang payroll sheet nga kumpleto na ug pirma ihatag sa treasurer ngadto sa bookkeeper.
51. Mag-andam ang bookkeeper ug Check Voucher (Form 4) ug kuyog sa payroll sheet, iya kining i-file.
52. I-rekord sa bookkeeper ang pagbayad ug sweldo ug bayad sa labor, basi sa payroll sheet, sa Cash Disbursements Journal (CDJ).

BILLING AND COLLECTIONS (LEVEL I AND II WATER SYSTEMS)

General Policies

1. Kada panimalay nga mugamit ug tubig gikan sa tapstand mubayad ug water tariffs basi sa aktwal nga tubig nga nakonsumo nila.
2. Ang water tariffs sa Level I ug Level II Water Systems tinglon matag container ug ang sukdanan sa pagkawos sa tubig mao lamang ang container nga aduna'y lima (5) ka gallon nga kapasidad.
3. Ang bayad sa paggamit sa tubig pangayuon dayon kada kuha ug tubig. Ug aduna'y moutang, ilista gayud ni sa checker sa notebook, ug kinahanglan makolekta na inig abot sa katapusan sa bulan sa dili pa maga-andam ug Monthly Summary of Daily Water Tariffs Collections (Form 8) ang collector.
4. Ang halin matag adlaw susihon sa leader ug musibo ba sa nalista sa checker sa iyang notebook. Ang notebook kinahanglan magarekord sa petsa, ngalan sa nagkaws sa tubig, pila kabuok container sa tubig ang gikaws, ang presyo kada container, ang total nga bayrunon/bayad, ug ang pirma sa nagbayad o nagkaws.

5. Ang halin matag adlaw ihatag sa checker sa collector ug pirmahan niya ang Monthly Summary of Daily Water Tariffs Collections (Form 8).
6. Ang Monthly Summary of Daily Water Tariffs Collections nga gibasi sa mga rekord sa notebook sa checker, ihatag sa collector ngadto sa PO bookkeeper sa katapusan sa bulan.
7. Sa dili pa ihatag sa bookkeeper ang Monthly Summary of Daily Water Tariffs Collections, magtapok and collector, checker, ug leader para susihon ug sakto ba ang kantidad nga narekord dinhi. Pirmahan kini nilang tulo.
8. Ang sumatotal nga koleksyon para sa tibuok buwan i-hatag sa collector ngadto sa PO treasurer. (Patan-awon pod sa collector ang treasurer ug unsa ang nakalista nga kantidad sa Monthly Summary of Daily Water Tariffs Collections).

Procedures

1. Abrihan sa tapstand leader ang gripo/tap stand (Level II) o pump stand o atabay (Level I) sa oras nga gitakda nga kini paga-abrihan.
2. Kung Level II ang water system, yang basahon ang meter reading sa dili pa kini paagason. Kung Level I, ang gikaws ra nga tubig ang basihan sa pagsingil sa water tariffs.
3. Muadto sa water pump o tap stand ang mokuha ug tubig.
4. Ilang iphon sa checker ug pila ka container sa tubig ang iyang gikuha.
5. Ilista sa checker ang konsumo sa nagkawos ug tubig sa notebook.
6. Tinglon sa checker ang nagkuha sa tubig basi sa pila ka container sa tubig iyang gikuha.
7. Mobayad ang nagkuha sa tubig sa checker.
8. Irekord sa checker ang nadawat nga bayad sa iyang notebook.
9. Pa-pirmahon niya ang nagbayad sa notebook.
10. Sa Level II nga water system, basahon na pod sa tapstand leader ang meter reading sa dihang nahuman na ang gitakdang oras sa pag-abri sa gripo aron matali ang konsumo. Sa Level I, ang container sa gikaws nga tubig mao ra ang basihan sa pagsingil ug water tariffs.
11. Ug kung matali gani (Level II), iyang pirmahan ang notebook sa checker. Kung magkatukma pod ang kadaghanun sa container nga gikaws ug ang nakolekta (gawas kung naa'y gi-utang), pirmahan sa tapstand leader ang notebook sa checker.
12. Sa katapusan sa adlaw, muanha ang collector sa checker ug iyang kolektahon ang halin sa adlaw.
13. Iya kining irekord sa Monthly Summary of Daily Water Tariffs Collections ug kini pirmahan nilang duha sa checker.
14. Kada katapusan sa bulan, sa dili pa ihatag sa bookkeeper ang Monthly Summary of Daily Water Tariffs Collections, magatapok ang checker, collector, ug tapstand leader aron ilang pagasusihon ug sakto ba ang narekord dinhi.
15. Kung nagatukma ang records sa checker ug sa collector, pirmahan nila, uban sa tapstand leader, ang Monthly Summary of Daily Water Tariffs Collections sa ubos sa total nga halin sa bulan.
16. Ihatag sa collector ang nakolekta niya sa tibuok buwan sa treasurer.

17. Ihatag sa collector ang Monthly Summary of Daily Water Tariffs Collections sa bookkeeper, ug kini paga-pirmahan nilang duha.
18. See Cash Receipts – Collection of Water Tariffs

BILLING AND COLLECTIONS (LEVEL III WATER SYSTEMS)

General Policies

1. Kada panimalay nga mahatagan ug kaugalingon nga Level III water system pinaagi sa proyekto mubayad ug water tariffs basi sa aktwal nga tubig nga nakonsumo nila.
2. Ang pagsingil sa water tariffs kada magbasi sa aktwal nga konsumo nila, basi sa meter readings.
3. Ang bayad sa paggamit sa tubig pagasinglon kada bulan.
4. Ang PO Chairman/President ug ang collector mao ang magbasa sa metro kada katapusan sa bulan. Kinahanglan aduna'y miyembro sa pamilya o panimalay nga mokuyog kanila ug basa sa metro. Ilista sa treasurer sa notebook ang konsumo sa tubig ug ang kantidad nga pagabayaran, ug papirmahon niini ang leader ug ang tagbalay.
5. Ihatag sa collector ang notebook sa bookkeeper para mag-isyu ang bookkeeper ug Water Billings Statement (Form 15) ug magrekord ug water tariffs income. Duha ka kopya sa statement ang i-isyu sa bookkeeper.
6. Ang collector mosuroy sa tagsa-tagsa ka panimalay para mag-distribute sa statement of water billings. Papirmahan niya ang duha ka kopya sa billing statement. Ang usa ka kopya iyang ihatag sa panimalay nga gipaninglan, ug ang usa mahimilin kaniya.
7. Lima ka adlaw gikan niya gidistribute ang billing statements, ang collector mosuroy ug usab sa mga panimalay para maningil sa ilang bayrunon. Iyang isuwat sa statements ug nabayaran na ba ang water tariffs, ug pirmahan kini.
8. Iyang isurrender sa PO treasurer ang mga billings nga pinirmahan para isyuhan sa treasurer ug OR.
9. Isuroy sa collector ang mga OR sa mga panimalay.
10. Ihatag sa treasurer sa bookkeeper ang mga billing statements para i-file. Ihatag pod niya sa bookkeeper ang OR para makarekord ang bookkeeper ug cash receipts. I-uli sa bookkeeper ang OR inig ka human niya ug rekord.
11. Ang dili makabayad sa collector, adto na modiretso ug bayad sa treasurer.

Procedures

1. Kada katapusan sa bulan, ang PO ChairmanPresident ug collector mosuroy sa tagsa tagsa ka mga panimalay para mahibaw-an ang ilang konsumo sa tubig basi sa meter readings.
2. Kinahanglan aduna'y miyembro sa pamilya o usa ka tagbalay nga mag-atong sa PO Chairman/President ug collector samtang gabasa sila sa metro para masigurado nga sakto ang pagbasa ug sakto ang irekord nga konsumo.
3. Isuwat sa collector ang meter readings, ug ang bayrunon sa notebook.
4. Mupirma ang PO Chairman/President ug collector sa notebook.

5. Ihatag sa collector ang notebook sa PO bookkeeper.
6. Ang bookkeeper magrekord ug water tariffs income para sa bulan.
7. Mag-andam siya ug duha ka kopya sa water billing statements.
8. Isuroy sa collector ang billing statements sa mga panimalay.
9. Papirmahan niya sa tagbalay ang "Received by" nga blangko.
10. Ihatag niya sa tagbalay ang orihinal nga kopya sa billing statement.
11. Lima ka adlaw gikan sa paghatag sa statement, maningil na ang collector sa mga panimalay.
12. Iyang pirmahan ang water billing statement ug nabayaran na kini.
13. Iyang isurrender sa treasurer ang nakolekta nga kantidad, ug ang mga statements sa mga nagbayad.
14. Mag-isyu ang treasurer ug Official Receipt para sa nadawat nga bayad sa water tariffs, basi sa mga billings. (Kung aduna'y mubayad diretso sa treasurer, kinahanglan dad-on niya ang kopya sa billings para papirmahan sa collector. Isyuhan ang nagbayad ug OR sa treasurer.)
15. Duha ka kopya sa OR ang isyuhon sa treasurer. Ang orihinal nga kopya adto sa nagbayad, ug ang ikaduha nga kopya mahimilin sa booklet.
16. Ihatag sa treasurer sa bookkeeper ang water billing statements para i-file. Ang pag-file sa bookkeeper sa mga statements itipo ang statements nga "Fully Paid" ug kadtong mga "Unpaid or With Unpaid Balance" para kung aduna'y mubayad sa iyang balance, dali ra matultolan.
17. Ihatag pod sa treasurer ngadto sa bookkeeper ang OR para makarekord ang bookkeeper ug cash receipts. I-uli sa bookkeeper ang OR inig human niya ug rekord.
18. Isuroy sa collector ang mga OR sa mga panimalay.

OTHER ACCOUNTING POLICIES AND PROCEDURES:

1. ***Ang mga transaksyon nga wala narekord sa mga Special Journals (CRJ and CDJ), i-rekord ngadto sa General Journal.***
   * Mga materyales nga gi-utang adto i-rekord sa Bookkeeper sa General Journal (GJ).
   * Ang mga adjusting entries ug ubang pang transaksyon nga wa nag-gamit o nagpagawas ug kwarta adto i-rekord sa GJ.

2. ***Ang mga entrada sa mga Journals kinahanglan i-post gayud sa General Ledger.***
   * I-post gayud sa Bookkeeper sa General Ledger balanse sa tanan nga credits ug debits nga narekord sa Special Journals ug sa General Journal.
   * Kinahanglan nga ang kada bulan nga mga balanse i-post sa Bookkeeper sa GL.

3. ***Ang mga counterpart contributions (kontribusyon sa partner o PO alang sa pagtukod sa proyekto) tarungon gayud ug compute ug kinahanglan ma-dokumentoan.***
   * Ang Counterpart Contributions sa miyembro kinahanglan tarungon ug compute sa Foreman o Chairman/President.
   * Ang Counterpart Contributions sa miyembro sa PO nakarekord sa Counterpart Contribution Summary – Labor ug Counterpart Contribution Summary– Cash/In Kind (Forms 12 and 13).

* Ang Project Foreman, isip tagadumala sa pagtukod sa proyekto, mao'y mag-verify sa kontribusyon sa miyembro, ug ang PO Chairman/President mao ang mag-approve niini sa dili pa ihatag sa bookkeeper ang mga Counterpart Contribution Summaries.
* Basi sa nakarekord sa Counterpart Contribution Summaries, mag-andam ang bookkeeper ug Counterpart Contribution Voucher (Form 1) kada bulan. Usa ka Counterpart Contribution Voucher ang paga-andamon sa bookkeeper kada klase sa kontribusyon (Nature of Contribution).
* Basi sa Counterpart Contribution Vouchers, mag-andam ang bookkeeper ug Quarterly Expenditure and Budget Performance Report for Counterpart Contribution (Report 2) kada tulo ka bulan, taguan sa bookkeeper ug i-file para sa pag-inspeksyon sa mga taga PEF.

4. ***Ang mga financial reports kinahanglan gayud regular nga pagahimuon sa bookkeeper samtang nagapadayon ang pagtukod sa proyekto, para kini nga financial reports ma-audit ug ma-inspeksyonan sa external auditors o third party nga naga-representa sa PEF.***
   * Kada tulo ka bulan, ang bookkeeper maga-himo ug Quarterly Expenditure and Budget Performance Reports for PEF Grants (Report 1) basi sa tanang narekord nga expenditures o gastos taman sa petsa nga gi-andam ang report.
   * Ang Bookkeeper maghimo usab sa Quarterly Expenditure and Budget Performance Report for Counterpart Contribution (Report 2) basi sa tanang counterpart contributions nga nakarekord sa Counterpart Contribution Vouchers ug Summaries taman sa petsa nga gi-andam ang report.
   * Kini nga mga reports nga pagahimuon kada tulo ka bulan padayon nga himuon sa Bookkeeper samtang ga sige pa ang pagtukod sa proyekto.

5. ***Ang mga external auditors (third party nga gi-hire sa PEF) mao ang mu-inspect ug mu-audit sa reports nga gi-andam sa bookkeeper.***
   * Kada tulo ka bulan, ang External Auditors (third party nga gi-hire sa PEF) mubisita sa lugar sa PO para i-monitor ang kalambuan sa proyekto nga gitukod.
   * Ang external auditors mag-inspect o mag-susi usab sa Quarterly Expenditure and Budget Performance Reports nga gi-andam sa PO bookkeeper.
   * Mag-inspect usab ang External Auditors sa rekords sa treasurer ug bookkeeper sa PO para i-sigurado nga tanan nga transaksyon ug mga panghitabo natarong ug rekord sa sakto nga mga libro o accounting books.
   * Inspeksyunon sa External Auditors ang mga dokumento ug uban pang mga ebidensya para masigurado nga tanang transaksyon ug ubang panghitabo natarong ug suporta pinaagi sa mga resibo, vouchers, ug uban pang mga importanteng dokumento.

6. ***Kada bulan, ang PO Chairman/President mangayo ug financial reporting bahin sa gamit sa tubig ug mga koleksyon.***
   * Kada regular nga meeting sa PO, ang Chairman/President, mangayo ug report bahin sa gamit sa tubig ug mga koleksyon, gikan sa mga tapstand leaders, checkers, collectors, treasurer ug bookkeeper.
   * Kinahanglan aduna'y reconciliation sa mga rekord sa mga collectors ug checkers, ug sa treasurer ug bookkeeper nga magahitabo kada bulan.

7. Ang kwarta nga kinolekta gikan sa gamit sa tubig angay nga i-deposito kada bulan.

* Kung mahuman na ang reconciliation ug financial reporting, ang total nga koleksyon i-deposito sa bangko sa Chairman/President ug Treasurer.

8. Ang PO bookkeeper angay nga regular nga mag-andam ug financial reports.

* Ang bookkeeper angay nga mag-andam ug financial statements ug ubang report gikan sa iyang rekords kada human sa tuig.

SECTION 3.4
SAMPLE TRAINING MODULE ON BWSA STRENGTHENING

FROM THE MATERIALS OF ENGINEER CARMELO GENDRANO JR.
PHILIPPINE CENTER FOR WATER AND SANITATION-INTERNATIONAL TRAINING NETWORK FOUNDATION

Training objectives

- Reorient participants on their roles, responsibilities, rights and obligations as leaders/ members of BWSA.
- Present the factors that contribute to the success of a BWSA, including how to manage conflict.
- Discuss the do and don'ts in the operation and maintenance of the water system.

Target participants

- Leaders and members of BWSA

Possible resource speakers

- PCWS-ITNF
- USC

Materials needed

- Writing materials
- Visual aids (PowerPoint presentation, etc)

Program content

Topic 1 – BWSA concept: definition, purposes, roles of members, etc.
Topic 2 – BWSA organizational structure
Topic 3 – BWSA capacity building
Topic 4 – Success factors of BWSA
Topic 5 – Conflict management
Topic 6 – Indicators of a functioning BWSA and a properly-maintained system

Duration

- One to two days

Flow

A. Introduction
Facilitator presents the flow and objectives of the training.
Facilitator introduces the speaker/s (if any) to participants.
Participants introduce themselves and share their expectations of the training.

Topic 1: BWSA concept

B. Facilitator introduces the first topic: the BWSA concept. Speaker/facilitator reviews the functions of a BWSA, and the reasons for organizing one, to remind participants of their purpose as an organization.

Input:

1. Barangay Water and Sanitation Association
- an organization of water supply and sanitation beneficiaries in a barangay whose objective is to OPERATE and MAINTAIN a LEVEL I or LEVEL II water system and sanitation facilities in the barangay

A Level I water system is a simply constructed point source from which people fetch water, like a water pump (shallow and deep wells), developed spring with only one tap stand and/or rain collector.

- With an average number fifteen (15) households.

A Level II water system is a facility constructed with two or more public tap stands (faucets). Each tap stand should serve an average number of five (5) households. Water source may be a spring or ground water.

2. Legal basis and mandate of BWSA: RA 6716 provides for the:
   - Construction of water wells
   - Rainwater collectors
   - Development of springs
   - Rehabilitation of existing wells
   - BWSA shall be organized to ensure proper use of water facilities and be registered with municipal councils.

3. Why organize a BWSA?
   - Ensure the provision of adequate, potable and accessible water supply to members through proper operation and maintenance of the water facility.
   - Avail a water system facility from the government.
   - Acquire legal personality so a community can accept a water system from the government.

4. How is a BWSA formed?
   - By orienting the prospective members on their rights, duties and responsibilities, thereby signifying their interest and commitment
   - In the formation process, community members should be assisted by the LGU.

5. Responsibilities of BWSA
   - Operate and maintain the facility.
   - Attend all meetings and trainings.
   - Collect contributions from members.
   - Implement policies and procedures approved by the BOD.
   - Observe proper sanitation practices.

6. Qualifications for membership in the association
   - Must be a household head, housewife or responsible household member
   - Must be a resident of the barangay where the water project is located
   - Must file an application for membership and pay membership fees

7. Responsibilities of members
   - Attend all meetings and trainings.
   - Pay monthly contributions.
   - Observe rules and regulations approved by the BOD.
   - Remind water users on the proper use of the water facility.
   - Keep the water facility (and its premises) clean, sanitary and free of excess water, which may cause contamination of the water source.

8. Rights of members
   - Right to operate/use the constructed water and sanitation facilities
   - Right to vote
   - Right to demand receipt for monthly contribution
   - Right to share ideas, suggestions and options especially during meetings
   - Right to hold elective office in the association

- Right to file charges against any erring official
- Right to examine the association's book of accounts

9. Roles and responsibilities of BWSA officers

President
- Conduct/preside overall meetings of the General Assembly.
- Preside over BOD Meetings.
- Execute policies relative to the management of the association and the maintenance of the water facility.
- Represent the association in any activity involving water and sanitation association operations.
- Assess the current condition of the association and recommend measures for its improvement or solutions to its problems.
- Perform other duties as may be assigned by the Board.

BOD
- Oversee the activities of the association.
- Formulate policies and procedures to carry out the affairs of the association.
- Elect the association officers.
- Attend all meetings of the Board and General Assembly.

Vice President
- In the event of death, incapacity or refusal of the President to perform his/her duties and responsibilities, the Vice President shall perform the duties of the President and other such duties which may be assigned by the Board.

Secretary
- Attend all meetings and record the proceedings/minutes.
- Call and preside over meetings in the absence of the President and the Vice President until a temporary presiding officer is chosen.
- Prepare and send notices of all association meetings.
- Keep all papers/documents.
- Perform other duties which may be assigned by the Board.

Treasurer
- Attend all meetings of the Board and General Assembly.
- Take proper custody of all funds and properties of the association.
- Ensure proper issuance of receipts for monies received by the association.
- Deposit all such monies of the association in a bank designated by the Board.
- Perform such other duties which may be assigned by the Board.

Bookkeeper
- Attend meetings of the Board as may be required.
- Safe keep the financial records of the association.
- Collect water contribution from members and issue corresponding receipts.

Caretaker
- Attend meetings of the Board as may be required.
- Oversee the operation and maintenance of the water facility.
- Inform/train members on the proper use of the facility.
- Report to the BOD damages or need for repair of the facility.
- Repair minor damages of the water facility.
- Assist in the collection of water fees.
- Remit collections to the Treasurer.
- Perform other duties which may be assigned by the Board.

10. Constitution and By-Laws
    - Puts on record organizational goals and objectives
    - Provides directions for the implementation of activities according to the association's goal and objectives
    - Provides guidance to members and officers about duties, responsibilities and rights
    - Sets down organizational structure
    - Sets down systems and procedures
    - Binds the group.

PARTS OF A BWSA CONSTITUTION AND BY-LAWS

a. Preamble
   - Belief/ideals of the organization
   - Will, religion, creed, ideology and race
   - Political affiliation, if any
   - What needs the organization intends to fulfil
   - Expression of belief in democratic principles, process, self-determination and God

b. Name of organization
   - Explanation of the organization's name (does the name reflect the beliefs of the group?)
   - Does the name reflect the meaning for the group's everyday life?

c. Purpose and objectives
   - Reasons for the establishment or formation of the organization
   - What members hope to achieve through the organization
   - Members' expectations of the organization

d. Eligibility of Members
   - Criteria for membership (age, sex, educational attainment, livelihood, profession, geographical coverage)
   - Beliefs the members must adhere to
   - Organization's expectations of its members

e. Rights and duties of members
   - Qualifications of leaders (Who can become officers?)
   - Qualifications for voting and positions within the organization (Who can vote and get elected?)
   - Attendance and participation in meetings (Who attends what meeting?)
   - Auditing and evaluation of organizational meeting of minutes, reports and financial records (Who are authorized to do these?)
   - Contributions, membership fees (Who are required to pay?)

f. Membership Fees
   - Amount of membership fees
   - Schedule of payments
   - Allowable expenses to be covered by membership fees

g. Resignation/expulsion of members
   - Grounds/reasons for resignation of members
   - Procedures for resignation of members
   - Grounds/causes for expulsion of members

h. Officers
   - Numbers, positions and functions of officers
   - Standing committees to be formed
   - Functions of committee members
   - Specific functions of committee members

i. Elections
   - Definite schedule of elections
   - Voting procedures
   - Group or committee responsible for conducting elections

j. Terms of Office
   - Tenure of office (Example: BOD – two years; half will be replaced in the yearly elections, or half of the officers with the highest votes will serve two years while the other half serves one year.)

k. Schedule of meetings
   - When is the regular assembly meeting?
   - When is the regular board meeting?

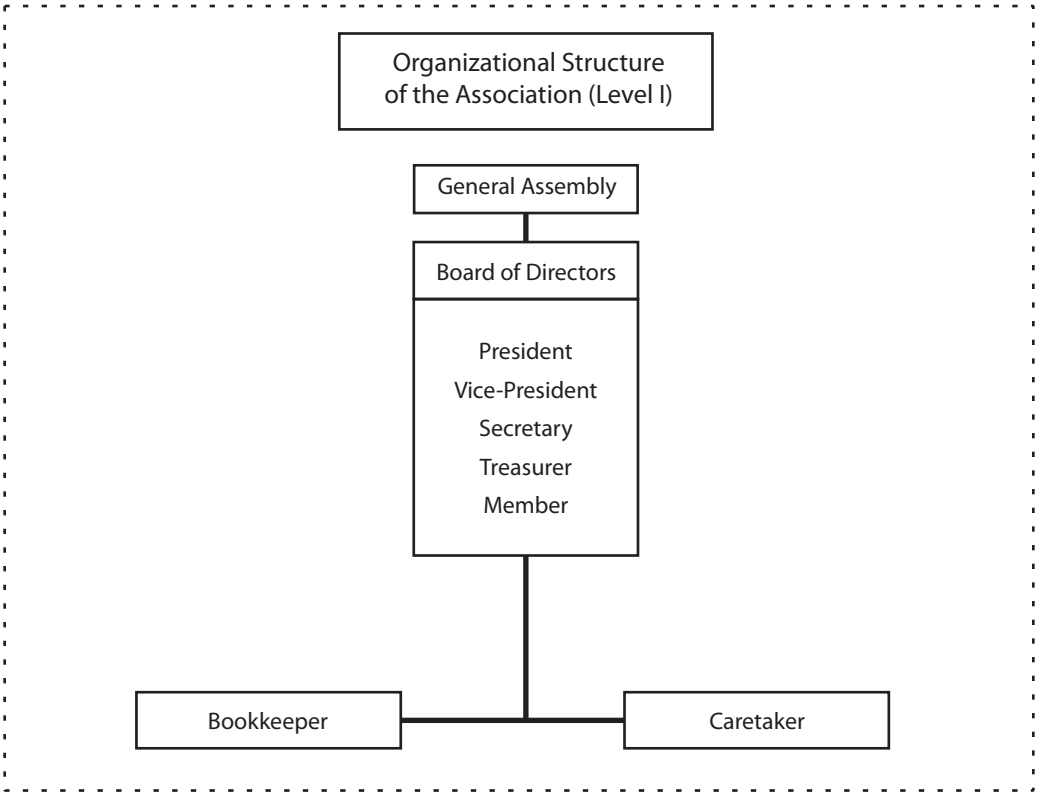
l. Amendments
   - Procedures for making amendments to the constitution and by-laws

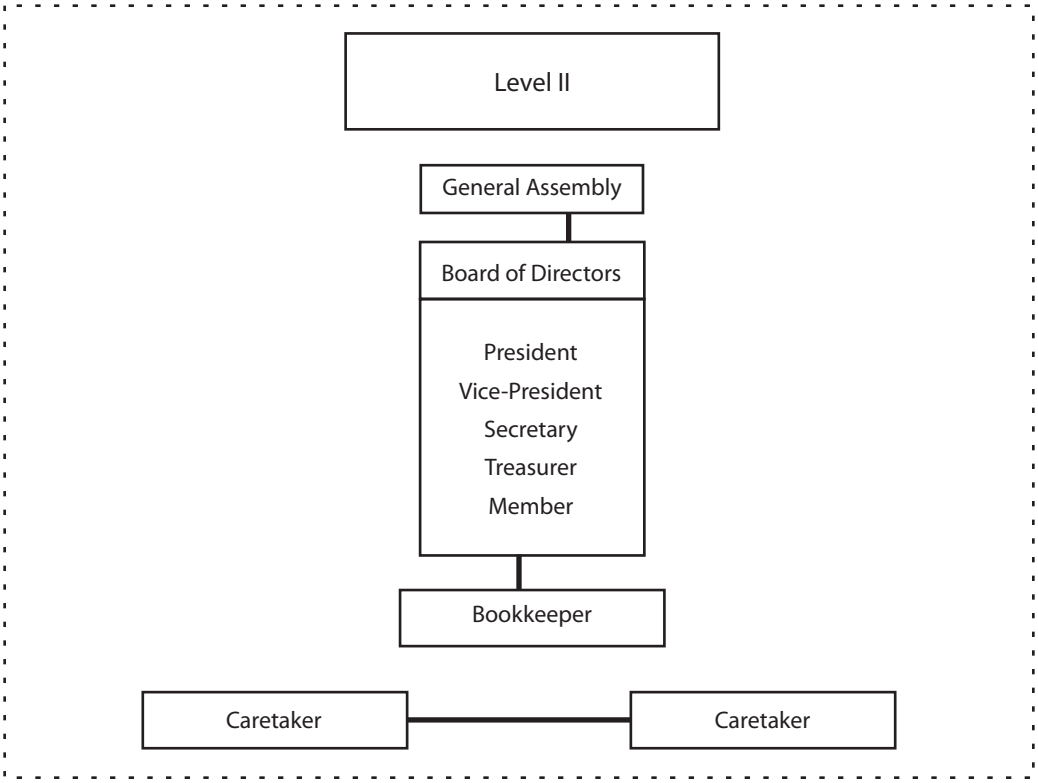
m. Funds
   - Types of funds
   - Sources of funds
   - Uses of funds

n. Annual financial audit
   - Schedule of internal and external financial audit

Topic 2: BWSA organizational structure

C. Facilitator then describes the organizational structure of the association.





Topic 3: BWSA capacity building

D. Facilitator introduces the topic on BWSA Capacity Building and what training the BWSA officers and members need to undergo to build the necessary capacities and skills to ensure smooth functioning of the organization.

Input: What training a BWSA needs to undergo and when

BWSA Training Needs

Organizational development		*Skills training for operating body*
Trust Walk Value Clarification Team Work Group Facilitation	Committee Work Constitution & By-laws Decision making Styles Conflict Management	Organizational Management Financial Management Operational Management

Project Training Matrix

Project Stage	Title	People to be Trained	CO Phase
Pre-Implementation	Team Building Leadership Value Formation	Core group	Organizational building phase
Implementation	Organizational Management Sanitation, Health and Hygiene	Core group & tapstand leaders Core group & tapstand leaders, all beneficiaries	Organizational building phase Organizational development
Post-Implementation	Financial Management Operational Management Skills Training	System manager, bookkeeper, meter reader/collector, treasurer, auditor, chairman of BOD Technical management staff	Organizational building phase Organizational development
Phaseout	Income Generation Project Orientation Capability-Building Activities	Technical management staff BOD, tapstand leaders	Consolidation phase

Topic 4: Factors that contribute to the success of the association

E. Facilitator goes to the next topic: Factors that contribute to the success of the association. Facilitator leads the group in an exercise by giving the following instructions.

Exercise: Geese Formation Puzzle

Participants should form groups of five or more. Each group should rearrange the pieces of the puzzle given to them until they form a whole. While solving the puzzle, the group should be in "geese formation" and must not talk to each other. Inform them that some of the pieces of the puzzle may have to come from the other groups and that they may therefore need to negotiate with them to get the pieces. Time allocation is five minutes only.

F. After the group exercise, facilitator presents the lessons conveyed by the exercise.

Input: Teamwork. Lessons from the "geese formation"

a. As each goose flaps its wings, it creates a "lift" for the bird that is following. By flying in a "V" formation, the whole flock adds 71percent more flying range than if each bird flew alone.
Lesson: People who share a common direction and sense of community can get where they are going quicker and easier because they are traveling on trust.

b. Whenever a goose falls out of formation, it suddenly feels the drag and resistance of flying alone and quickly gets back into formation to take advantage of the lifting power of the birds immediately in front.
Lesson: If we have as much sense as a goose, we will join in formation with those who are headed where we want to go.

c. When the lead goose gets tired, it rotates back into formation and another goose flies at the point position.
Lesson: It pays to take turns doing the hard tasks, share leadership with people, and be interdependent.

d. The geese in formation honk from behind to encourage those up front to keep up their speed.
Lesson: We need to make sure our honking is encouraging and helpful, not demoralizing or aggressive.

e. When the goose is sick, wounded or shot down, some of the geese drop out of formation and follow the sick one down to provide protection. They stay with this member of the flock until he or she is either able to fly again or eventually dies. Then they launch out on their own with another formation, or catch up with the rest of the flock.
Lesson: If we have as much sense as the geese, we will stand by one another.

G. Facilitator then talks about the major factors, besides teamwork, that contribute to the success of the association.

Factors that contribute to the success of the association:

- Members who are enlightened, united, cooperative and supportive
- Officers who are capable, trustworthy, loyal and dedicated to service
- Policies that are effective and meet the needs of the members
- Adequate and serviceable water and sanitation facilities

Topic 5: Conflict Management

H. Facilitator introduces the topic on conflict management.

Input: Managing Conflict

1. What is conflict?
   - Disagreement between two or more organization members or groups
   - Causes:
     - Sharing of resources
     - Sharing of work activities
     - Different status, goals, perceptions,
     - Personality differences

2. Classes of conflict
   - Functional conflict – potential for improving performance (conflict is sometimes desirable)
   - Dysfunctional – impairing organizational performance

3. Fundamental ways in which people interact
   - COOPERATION – when people work for common goals
   - COMPETITION – When individuals strive against other individuals

4. How to minimize conflict
   - WIN/LOSE : winner & loser
   - LOSE/LOSE : both parties are losers
   - WIN/WIN : both parties are winners

5. Decision-making styles
   - Plop
   - One-person decision (autocratic)
   - Handclasp
   - Clique
   - Minority
   - Majority
   - Silent majority
   - Silent consensus
   - Consensus

6. Difficulties in decision-making
   - Fear of consequences
   - Conflicting loyalties
   - Interpersonal conflict
   - Hidden agenda
   - Blundering methods
   - Inadequate leadership
   - Clash of interests

Topic 6: Indicators of a Properly Maintained Water System

I. The speaker presents the indicators of a properly maintained water system so that members and leaders can assess if they are functioning well or need to overcome their weaknesses.

Input: Indicators of a properly maintained water system

1. Institutional/organizational indicators
   - The association conducts meetings regularly to discuss and resolve problems regarding operation and maintenance.
   - The association has formulated and is implementing a simple policy.
   - The officers are performing their functions actively.
   - The officers are implementing the policies strictly.
   - The member-users strictly comply with the policies.
   - The member-users are actively participating in all activities of the association.
2. Physical indicators
   - The water source, reservoir and tank are regularly cleaned.
   - All damaged faucets are replaced and not bundled with rubber strips.
   - The system is free from illegal connections.
   - There are no leaking faucets, joints or pipes.
   - Water is available to all users.
   - Water is equally distributed to all users.
   - Water source area is protected, cleaned and maintained.
3. Financial indicators
   - Water fees and dues are efficiently collected.
   - All member-users are paying their fees and dues on time, with no delinquent payers
   - O & M funds are set aside and used only for the purpose.
   - Funds for repair are available when needed.
   - Books and records are installed and kept.

K. Open Forum. Speaker/facilitator entertains clarifications/questions.

L. Closing: Facilitator wraps up the training and ends with a closing prayer/ceremonial closing.

SECTION 3.5
SAMPLE TRAINING DESIGNS ON OTHER TOPICS

SOURCES: *From training designs provided by PEF project partners: Coalition of Social Development NGOs in South Cotabato (CSDO-SC), Feed the Children Foundation in Bohol; and development associates Apolinario Sambas, Sostenes Genzola and Engr. Jun Orca.*

1. SAMPLE TRAINING DESIGN ON ORGANIZATIONAL DEVELOPMENT, TEAM BUILDING AND ACTION PLANNING

Training objectives

- Enhance participants' personal effectiveness through an understanding of oneself and others.
- Strengthen participants' effectiveness toward coordinated action for effective development work.
- Strengthen participants' commitment and support to the program's common vision, mission and goals.
- Develop and package the 1-Year Action Plan for Organizational Development of assisted communities.

Target participants

- Community leaders and members

Methodology

- The workshop methodology is participatory and experiential in approach. It will build on the participants' own knowledge, skills and experiences. Training methodologies that will be utilized in this workshop shall include: structured learning exercises (SLE), group discussions/sharing sessions and workshops. Lectures will be limited to the discussion of basic concepts and theories and shall be enriched by the participants' own ideas and knowledge.
- The training could be adequately and effectively conducted by at least two (2) full time facilitators, one (1) full-time documentor and one (1) support staff for admin and other training concerns.

Duration: Two and a half days

Design

Introductory activity: Briefing and orientation

Module 1: *Clarifying the vision*

Personal and community vision
Role of the core groups (PO s/NGOs) in community development

Module 2: *Enhancing personal effectiveness*

Self and others
Values and leadership

Module 3: *Enhancing group effectiveness*

Communication & human relations skills
Shared/participatory leadership

Module 4: *Action planning*

Community situation analysis
Action planning (Integrating with potable water system activities)

2. SAMPLE TRAINING DESIGN ON LEADERSHIP FORMATION

Training objectives

- Enhance participants' understanding of people's organizations as conduits of development.
- Provide participants with a better understanding of themselves and their roles in their organization.
- Enable leaders/officers to understand the roles, functions and styles of leadership.
- Enable the core group leaders to develop and acquire basic leadership skills.

Design

Module 1: *Orientation and training overview*

Introduction of participants
Overview of the training program
House rules
Administrative concerns/host team organization

Module 2: *Understanding organizations*

Nature and characteristics
PO models
Role analysis

Module 3: *Self and the organization*

A. Self-awareness
   - Symbolism
   - Strengths and weaknesses

B. Group process
   - Bayanihan
   - Functional and dysfunctional behavior
   - Stages of development

Module 4: *Enhancing leadership skills*

A. Enhancing leadership functions, roles, attributes and styles

B. Values and leadership

C. Developing leadership skills
   - Communicating
   - Initiating
   - Asserting
   - Problem Solving/Consensus-seeking

Module 5: *Summary and integration*

A. Training synthesis

B. Training evaluation

3. SAMPLE TRAINING DESIGN ON VALUES REVIEW: 7 HABITS OF HIGHLY EFFECTIVE PEOPLE

Module 1: *How to acquire most of the habits*

- Paradigm Shifting (Definition)
- Maturity Continuum
- Habits (Definition)

Module 2: *Habit 1: Be Proactive (Habit of Personal Vision)*

- Self-awareness
- Reactive and proactive models
- Circle of influence
- Principles and applications

Module 3: *Habit 2: Begin with the end in mind (Habit of Personal Leadership)*

- Leadership and management (difference)
- Alternative centers
- Principle center
- Applications

Module 4: *Habit 3: Put first things first (Habit of Personal Management)*

- Time management
- Personal organizing
- Types of delegation
- Applications
- Efficiency/effectiveness

Module 5: *Habit 4: Think win–win (Habit of Interpersonal Leadership)*

- 6 paradigms of human interactions
- Dimension of win-win
- Application

Module 6: *Habit 5: Seek first to understand then to be understood (Habit of Emphatic Communications)*

- Character and communication
- Emphatic listening
- Diagnose before you prescribe
- Then seek to be understood
- Applications

Module 7: *Habit 6: Synergize (Habit of Creative Cooperation)*

- Synergy in communication
- Valuing the difference
- Applications

Module 8: *Habit 7: Sharpen the saw (Habit of Balance Self-Renewal)*

- 4 dimensions of renewal
- Philosophers of life
- How to sharpen the saw
- Applications

4. SAMPLE TRAINING DESIGN ON BASIC WATER PROJECT MANAGEMENT

Training objectives

- For the BAWASA, key decision-makers to identify their roles and responsibilities, duties and rights, and implementing rules and regulations
- For the participants, to be familiar with the common causes of project failures in view of management operations of waterworks project
- For the participants, to identify and plan for the future funds need of the waterworks project vis-à-vis repairs and maintenance
- For the participants, to acquire a working knowledge and skills in recording the financial transaction of the waterworks project

Materials

- Project Agreement and Attachments (i.e., presentation report, approved budget and schedule of fund releases and major project deliverables)
- Memorandum Of Agreement with Local Partners (i.e., LGU, others)
- Periodic progress reports
- Books of accounts
- Project monitoring reports (i.E., Partners and PEF)

Resource persons

- PEF development associates/consultants
- Personnel of local resource agencies

Duration: Two Days

Design

Session 1: Overview of organization and management

- Ensuring the attainment of the "Mission or Purpose(s)" of the organization; and
- Ensuring that "Productive Work is Achieved and Workers are Achieving"

Session 2: Functions of management

- Planning and implementing
- Organizing and staffing
- Supervising and directing
- Controlling

    - *Project Implementation*. The planning process of the serves as guide in the project implementation. Implementation, therefore is the actualization of the plans made.
    - *Feedbacking*. Without knowing the results of the periodic tasks or deliverables, the organization will not be able to identify that the means employed are right, wrong, or effective/appropriate. Feedbacking, therefore requires a written report to document the progress of the project in view of adjustments to the plans.
    - *Analysis*. This involves comparison of the plans made with the results of tasks undertaken resulting from the feedback undertaken. Questions then should be asked—What plans were not implemented? What went wrong or could this

happen again? Answers to these questions will serve as inputs to Adjustment of Plans.

- *Adjustments of plans*. Adjustments could cover the issue of plans being unrealistic or the plans were not followed or undertaken at all. Furthermore, there is a possibility that objectives were set unrealistically. There are two (2) common mistakes committed: first to take the wrong action or no action at all when necessary, and second, to take action when it is not necessary.

Training scope

- The need to identify roles and responsibilities
- Common project failures at PO level
  - Failure to recognize a genuine opportunity.
  - Being unprepared
  - Poor time management
  - Lack of capital
  - Lack of long-range plans

  The need for proper recording of financial transactions

  The need for future funding requirements
  - Balance sheet
  - Income statement
  - Cash flow

Project aspects

A. *Technical aspect*: *Financial Capacity and Capacity to Provide the Service.* Suggested steps should be given consideration in order to clarify the technical needs of the project:
   - Determine the time needed to accomplish each of the production steps.
   - Determine the equipment and tools needed for each step.
   - Determine the manpower and skills needed for each step.
   - Determine the cost of equipment, tools and manpower for each step.

B. *End users/market aspect.* Provides an overview of the supply and demand in view of pricing. One should keep abreast of the movement of demand and supply in order to establish an appropriate pricing of the services being supplied. One basic consideration for pricing is the current acceptable, the cost of project operations plus markup, or both.

C. *Financial Aspect*. Basic considerations, are as follows:
   - Setting of financial objectives
   - Budgeting of fund needs
   - Economical use of funds
   - Record keeping – preparation of financial statements (i.e., balance sheet, income statement and cash flow)

D. *Management/Personnel Aspect.* Doing the following:
   - From the plans made, identify the general critical activities (deliverables) of the project.
   - From the general critical activities, identify specific critical activities (specific deliverables).

- If necessary, further subdivide the specific critical activities.
- Allocate jobs to different members and project staff available or that could be made available.
- Group together different jobs assigned to a particular staff member so that expectations will be clear.
- Review/analyze whether there are duplications or unfair division of work.
- Finalize job descriptions to reflect the areas of duties, responsibilities and accountabilities of each member of the organization.

Plenary session (open forum/critiquing)
End of training

5. SAMPLE TRAINING DESIGN ON OPERATIONAL MANAGEMENT

Training Objectives:

- Acquire technical knowledge, skills and attitudes necessary in the operation, maintenance and repair of a piped-water system.

Materials:

- Manila paper
- Marking pens
- Masking tape
- Board and chalk
- Transparencies
- OHP
- Handouts
- Visual aids (charts, etc)
- Chlorine, dipper
- Container, #5

Design:

DAY 1

Registration

Introductory session

Leveling of expectations

Training goal, schedule, contents and methodologies

Training norms

Sharing

Discussion

Orientation

Module 1:

1.0 WATER CYCLE AND WELL WATER SOURCES

1.1 Geology

1.2 Types

1.3 Characteristics

1.4 Flow Measurements

1.5 Water Service Levels

Sharing

Module 2: Operation, maintenance and repair of wells and pumping facilities

2.1 Types

2.2 Principles

2.3 Operation

2.4 Accessories and maintenance

Module 3: Operation, maintenance and repair of pipelines

3.1 Plumbing tools

3.2 Pipes and fittings

3.3 Valves and cocks
3.4 Water meters
3.5 Faucets and tapstands

Sharing

Module 4: Maintenance and repair of tank and chlorination box

4.1 Structure and appurtenances
4.2 Leak detection
4.3 Repair methods
4.4 Maintenance schedule

Sharing

DAY 2

Recap and announcements

Module 5. Water treatment and system disinfection

5.1 Water treatment methods
5.2 Household water disinfection
5.3 System disinfection
Steps for disinfecting water
Steps for disinfecting a piped-water system

Sharing
Training evaluation
Closing ceremony

6. SAMPLE TRAINING DESIGN ON ORGANIZATIONAL MANAGEMENT

Preliminary sessions
- Training goals, schedules
- Leveling of expectations
- Training contents and methodologies
- Training norms
- Host team formation and tasking
- Orientation

Module 1:

Rural Waterworks System

- Water service levels
- System layouts and components
- Advantages and disadvantages

Rural Water System Management]

- Importance
- Benefits and challenges

Legal Documents

- Registration
- Water rights
- *Water franchise*

Module 2:

Organizational Structures

- Types of organizations
- Types of structures
- Advantages and disadvantages

Effective Committee Work
Constitution and By-Laws: Lecture and Discussion
Roles and responsibilities of officers and members
Formulation of technical management staff tasks and responsibilities

Module 3:

Formulation of tapstand policies

- Method of monitoring fetched water
- Water charging
- Sanitation around the tapstand and cluster
- Beautification and physical development at the tapstand site
- Financial management regarding water tariffs

Formulation of water policies and procedures

- System for determining water tariff
- Honoraria and benefits
- Payment and collection
- Delinquencies and penalties

- Record keeping and reporting
- Financial internal control
- System for planning
- System for monitoring

Module 4:

Water rate computation

- Expense items
- Sources of income
- Rate of computation

Project planning

- Development of work plan

Synthesis and evaluation
Closing ceremonies

7. SAMPLE DESIGN FOR EDUCATIONAL/ STUDY TOUR ONE DAY VISIT TO TWO OPERATIONAL WATER SYSTEMS

General objective

Gain insights in management, operation and maintenance of communal (Level II) piped water systems.

Specific objectives

a. Observe system operations of both efficient and not so efficient water system facilities.
b. Identify strategies, methodologies applied or adopted in managing existing water projects on the aspects of community-organizing, capability building, planning, institutional/organizational development , administrative/ financial, system operations , networking and advocacy.
c. Appraise tapstand policies, other regulations observed including performance of committees or water management bodies consolidated into the management of the whole system.
d. Exchange information, e.g. in building partnership with LGUs, sourcing of funds

Flow of activities

1. Arrival
2. Registration
3. Acknowledgment and introduction of participants, BOD and management staff
4. Project presentation
   - Project history
   - How it was organized
   - Organizational structure
   - Who were involve during the implementation
   - Operation and maintenance
   - Policies/Procedures
   - Penalties
   - Legal documents
   - Problem encountered and how it was resolved
   - Membership
   - Water Rate
5. Facility Tour Visit
6. Processing
7. Visit Evaluation
8. Travel to Site 1
   a. Presentation
      - Sharing
      - Open forum
9. Travel to Site 2
   a. Presentation
      - Sharing
      - Open forum

8. SAMPLE TRAINING DESIGN ON HEALTH, HYGIENE AND SANITATION

Objectives

1. Acquire necessary knowledge and skills and attitudes on proper sanitation and hygiene.
2. Enhance practices in handling and maintaining water quality in their respective homes and communities.
3. Discuss the importance and application of the new concepts learned and to enhance participants related obligations.

Duration: Two days

Methdology: Lecturette, workshop, role play

DAY 1

Registration
Opening ceremony

Introduction session

- Course overview
- Levelling off expectations
- Course schedule and mechanics
- Training norms and house role
- Host team formulation

Module 1: Environmental sanitation

- Definition and concepts of environmental
- Sanitation
- Environmental health
- Communicable diseases
- Mode and process of transmission of
- Communicable diseases

Module 2: Safe water

- Water and health
- Water contamination
- Water testing
- Water treatment
- Inspection and cleaning of water reservoir
- Handling, transport and storage of water
- Protection of water sources

DAY TWO

Module 3: Safe disposal of human and animal excreta

- Purpose of proper excreta disposal
- Mode of transmission of excreta-related disease

- Requirements for sanitary latrines
- Site selection
- Types of sanitation facilities
- Personal hygiene
- Animal waste

Module 4: Types, characteristics disease of carrying insects and vermin-breeding places

- Commonly-transmitted diseases
- Control and measures/methods in preventing spread of diseases brought by common insects and vermin

Action planning
Training evaluation
Closing

9. SAMPLE TRAINING DESIGN ON WATER AND WATERSHED MANAGEMENT

Water and Watershed Management Training Workshop
Barangay Lambingi, Banga, South Cotabato

DURATION: ONE DAY

DATE/ TIME	OBJECTIVE	TOPIC/ACTIVITY	METHOD	RESPONSI-BLE PERSON	EXPECTED OUTPUT
7:30–8:30	To prepare venue and participants for the training	Arrival/registration of participants		Secretariat	Official list of training participants
8:30 –9:00	To ask the participants for their active participation To familiarize the participants with the house rules, and the overall concept of the training To orient participants with the training module/activities for the whole duration of the training	Opening Activities: -Invocation -Welcome address -Introduction Training course overview	Orientation	Participants Project coordinator Resource Person Facilitator	Gained an understanding of the general purpose of the training. Clarified training schedules and activities for the whole duration of the training
9:00–10:00	To level off expectations for the training	Expectation setting	Group dynamics	Facilitator	Atmosphere set for the training
10:00–10:15		SNACK BREAK			
10:15–12:00	To enable participants to know the objectives and concept of watershed management	-Concept in watershed management -Guiding principles in watershed management -Current state of watershed management in the Philippines -Prerequisites for successful watershed management in the Philippines	Workshop/ discussion/ sharing of experience	Resource person	Learned the benefits, costs and losses of watershed management on economics, social services and environmental services

DATE/ TIME	OBJECTIVE	TOPIC/ACTIVITY	METHOD	RESPONSI-BLE PERSON	EXPECTED OUTPUT
12:00 – 1:00		LUNCH BREAK			
1:00 – 2:00	To enable participants to learn preparatory planning, and the preliminary, comprehensive biophysical and socio-economic watershed characterization	-preparatory planning -preliminary watershed characterization -comprehensive biophysical watershed characterization -comprehensive socio-economic watershed characterization	Lecture/ discussion/ sharing	Resource person	Gained knowledge on preparatory planning, and the preliminary, compre-hensive biophysical and socio-economic watershed charac-terization
2:00 – 3:00	To enable participants to identify and analyze problems, opportunities, constraints and its considerations	-Identification of problems, opportunities, constraints and considerations -Identification of design considerations for planning -Selection and allocation of best land uses	Lecture/ discussion/ sharing	Resource person	Acquired knowledge in the identification and analysis of problems, opportunities, constraints and its considerations.
3:00 – 3:15		SNACK BREAK			
3:15- 4:30		Formulation of detailed project plans			
4:30 – 5:30	To prepare plan of implementation for the organization/ community	Plan implementation	-Input -Workshop -Presentation -Critiquing	Facilitator	Plan implementation for both personal and organization/ community
5:30		HOME SWEET HOME			

The **Peace Equity Access for Community Empowerment Foundation, Inc.** (or Peace and Equity Foundation, PEF) is a non-stock, non-profit organization founded in October 2001 to empower the poor and marginalized communities in Philippine society. PEF administers an endowment fund established by the Caucus of Development NGO Networks (CODE-NGO).

PEF focuses its assistance to the country's poorest provinces (initially focusing on 28 priority provinces and the National Capital Region). Based on a national poverty mapping conducted in 2003, these are areas with low income, large magnitude of poor residents, inadequate health and education services, and other generally accepted indicators of poverty. PEF works in partnership with civil society organizations such as people's organizations, cooperatives, faith-based groups, non-government organizations, and similar entities that serve the struggling households in the poorest communities.

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