MINUTES OF MEETING ON

THE 3RD MEETING OF JOINT COORDINATING COMMITTEE

29th November 2018

MINUTES OF MEETING
ON
THE THIRD MEETING OF JOINT COORDINATING COMMITTEE
FOR
PROJECT FOR STRENGTHENING THE TRAINING CAPACITY OF IBTC
ON NON-REVENUE WATER

HELD AT
IBTC, DEPARTMENT OF WATER & SANITATION

Pretoria, 29th November 2018

Mr. Akinori MIYOSHI
Chief Advisor,
Japan International Cooperation Agency
(JICA) Expert Team

Mr. Aloious Chaminuka
Chief Director: Engineering Services
Department of Water and Sanitation
(DWS)
Republic of South Africa

Mr. Tomohiro Seki
Chief Representative,
JICA South Africa Office

Attached Document

For simplified monitoring of progress, discussion on issues, challenges, solutions and way forward of the Project for Strengthening the Training Capacity of IBTC on Non-Revenue Water (hereinafter referred to as "the Project") at the end of the Phase 1, the third meeting of Joint Coordinating Committee (hereinafter referred to as "JCC") was held on 29th November 2018.

1. Remarks

The Chairperson: Mr. Aloious Chaminuka, Chief Director, Engineering Services, DWS, opened the meeting and gave his thanks to the progress of the Project to date. He further expressed his gratitude to the Project Team members for their contribution to the implementation of the Project.

Mr. Tomohiro Seki, Chief Representative of JICA South Africa Office, expressed his heartfelt gratitude to the Project Team members and his hope that today's deliberations will bring about much needed traction for the Project to succeed. He further indicated the importance of our passion, better communication, team work and trust relationship for smoother implementation and urged the participants to come up with meaningful contributions.

As closing remarks, Mr. Vincent Monene, Director, Technical Engineering Services, DWS, expressed his gratitude to the participants and cordial relationship among them. He further emphasized the importance of clarity of all project aspects for a success.

2. Presentation

Mr. Akinori Miyoshi, Chief Advisor of JICA Expert Team, Mr. Albert Mmbidi, Director, International Water Support, DWS, and Mr. Lesego Lekubu, Deputy Director, Operational Support, DWS, made a presentation jointly (refer to Appendix 3) on the project outline, progress, current issues, challenges, solutions and revision of Plan of Operations, then requested the JCC members to recognize them.

Ms. Kgoputso Sekgoilane, Training Manager, Infrastructure Branch Training Centre (IBTC), DWS, made a presentation (refer to Appendix 4) on the draft Business Plan of the NRW National Training, then requested the JCC

members to confirm it.

Mr. Armand Basson, Project Manager, Construction West, DWS, made a presentation (refer to Appendix 5) on the draft design of the NRW National Training yard and equipment, then requested the JCC members to approve it.

3. Main Points discussed

As the result of discussions, all JCC members confirmed the following matters:

3-1. Revision of the Project Implementing Structure (Phase 1)

It has been observed that the project was not effectively managed and the necessity of dedicated members has been highlighted in the previous JCC meetings. Hereupon, DWS noted issues and proposed improvement in the following aspects prior to this JCC meeting:

- Governance and management of the Project
- Communication
- Funding
- Monitoring and reporting

To improve or solve the above issues, the Project Team proposed a new implementing structure consisting of the Project Management Committee, Task Managers and Task Teams (refer to Appendix 6), which shall be re-organized flexibly before each stage in the Project such as:

	Stage	Period covered	Timeline
a	Training planning stage	Nov. 2018 to Feb. 2019 (proposed currently)	Approved
b	Training development stage	Mar. 2019 to Jun. 2019	By the end of Feb. 2019
c	Training implementation and monitoring stage	Jul. 2019 to the end of the Project	By the end of Jun. 2019

The proposed Project Management Committee will prepare project management documents, which describe all tasks/sub-tasks, decision making process, regular meetings, rules and tools for scheduling, progress management and information sharing, by 11th of December to ensure effectiveness and substantial results from the new structure.

The JCC members accepted this re-organization and also confirmed a

commitment to make the Project members be faithful in their performance and responsibility.

3-2. Delay in Training Development (Selection of Facilitators and the Target Participating Municipalities)

The Project Team drafted selection criteria and listed candidate facilitators and the target participating municipalities provisionally, but they have not yet been formalized to proceed securing facilitators. Due to this delay, the Project could not hold Facilitator Technical Meetings in 2018 and involve facilitators in the process of training development.

The Project Management Committee and relevant Task Teams will convene and develop strategy to fast-track the selection with support from relevant JICA Experts, then suggested rescheduling the Project activities and coping with this situation as below:

	Items	Timeline
a	To complete selection criteria and listing candidate facilitators and the target participating municipalities, then obtain concurrence of Project Management Committee.	By 7th of Dec. 2018
b	To prepare terms of reference or equivalent of facilitator.	By 7th of Dec. 2018
c	To complete securing facilitators and the target participating municipalities including memorandum of understanding/agreement or equivalent.	By the end of Feb. 2019
d	To hold facilitator technical meetings and/or take alternative means such as individualized dialogues with each facilitator even in consideration of DWS's financial constraint. * This arrangement will be concluded by the 11th of Dec. 2018.	1st Mar. to 30th Apr. 2019
e	To make strategic use of training in Japan for facilitators currently-scheduled in the second half of May 2019. Unless facilitators are secured with their specific names by the end of Feb. 2019, training in Japan cannot be implemented as planned, which causes further delay.	The second half of May 2019
f	To draft learning materials under the initiatives of JICA Experts prior to the above facilitator technical meeting and/or alternative means.	By the end of Feb. 2019

The JCC members reconfirmed the importance and necessity of

facilitators from stakeholders for the NRW National Training, and approved these suggestions. Then, the JCC members confirmed a commitment to make the Project members be faithful in his/her performance and responsibility without further delay.

3-3. Relation with Qualification "Water Reticulation Practitioner"

The Project needs to have the perspective of sustainability of the NRW National Training with synergic effects and introduction of possible collaboration with recently-developed qualification "Water Reticulation Practitioner" in training development and implementation. The Project Management Committee concluded as below:

a. The Project Team, particularly Operational Support unit of DWS and relevant JICA Experts, attends meetings of the group for developing qualification and training of Water Reticulation Practitioner, namely "Framework Programme for Research, Education & Training in the Water Sector (FETWater)".
b. Operational Support unit coordinates and takes a role of interface.

The JCC members accepted this conclusion.

3-4. Acceleration and Sound Implementation of the Project

In the light of early dissemination of the NRW National Training with positive impacts, the Project Management Committee concluded as below:

a. To avoid further delay in selection of facilitators and the target participating municipalities.
b. To make efforts by all means to enhance involvement of the Project members more than ever under the new implementing structure.
c. To review and classify tasks/sub-tasks under/beyond the roles and responsibility of either DWS or JICA Experts in consideration of the facts such as capability and budget constraints of DWS.

The JCC members accepted this conclusion.

3-5. DWS's Budget and Funding to the Project

In view of current DWS's financial challenge, the Japanese side expressed the concern about securing budget for the next fiscal year and application to Sector Education and Training Authority (SETA), and also emphasized the necessity of a lot of efforts to tackle NRW problems of municipalities through

training in the national level.

DWS committed to request necessary budget for the Project and secure funding from the relevant SETA by extending agreement.

3-6. Involvement of Stakeholders

The Japanese side highlighted the necessity of a strategical approach to involve stakeholders, particularly Municipalities, the South African Local Government Association (SALGA) and the Department of Cooperative Governance and Traditional Affairs (CoGTA), as well as of preparing an alternative for a success.

DWS committed to call in stakeholders in the next JCC meeting and ensure the Project's purpose to be achieved in accordance with increasing attention of the DWS's Minister. JCC was informed that the Minister has requested an interactive session with the team that participated in the benchmarking exercise in Japan.

4. Confirmation of Draft Business Plan of the NRW National Training

As the result of presentation, discussions and confirmation of the NRW National Training's business model, the JCC members confirmed the draft Business Plan of the NRW National Training (refer to Appendix 7), which will be reviewed, then finalized as soon as possible, especially the part of selection criteria of candidate facilitators and the target participating municipalities. The draft shall be approved in the next JCC meeting.

5. Approval of the Draft Design of the NRW National Training Yard and Equipment

As a result of presentation and discussions, the JCC members approved the draft design of the NRW National Training yard and equipment (refer to Appendix 8), which has been developed in collaboration with Utility Services of City of Tshwane. The Project will proceed procurement after the JICA Headquarters confirm/accept the design.

6. Approval of Revision of PO

Based on the presentation of progress, issues, challenges, solutions and

also the result of discussion, the JCC members approved revision of PO (refer to Appendix 9).

END

Appendix

Appendix 1: Programme/Agenda
Appendix 2: Attendance Register
Appendix 3: Presentation 1: Outline, Progress, Issues, Challenges, Solutions and Revision of Plan of Operations
Appendix 4: Presentation 2: The draft Business Plan of the NRW National Training
Appendix 5: Presentation 3: The draft design of the NRW National Training yard and equipment
Appendix 6: Proposed new implementing structure for the training planning stage
Appendix 7: The draft Business Plan of the NRW National Training
Appendix 8: The draft design of the NRW National Training yard and equipment
Appendix 9: Revision of Plan of Operations (PO_2 to PO_3)

water & sanitation
Department: Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Japan International Cooperation Agency

SALGA
Inspiring service delivery

National Water Resource Infrastructure Branch (NWRI)
Infrastructure Branch Training Centre (IBTC)
assisted by
Japan International Cooperation Agency (JICA)

PROJECT FOR STRENGTHENING THE TRAINING CAPACITY OF IBTC ON NON-REVENUE WATER

PROGRAMME/AGENDA FOR THE 3RD JCC MEETING

Co-Chaired by Mr. Aloious Chaminuka and Mr. Tomohiro Seki
Venue: IBTC, DWS, Pretoria
Date: 9:30, Thursday, 29th November 2018

09:30 - 09:35	Introduction of Participants
09:35 - 09:45	Remarks by DWS: Mr. Aloious Chaminuka (Chief Director, Engineering Services)
09:45 - 09:55	Remarks by JICA South Africa Office: Mr. Tomohiro Seki (Chief Representative)
09:55 - 10:10	Project outline, progress, current issues, challenges, solutions and revision of Plan of Operations: Mr. Akinori Miyoshi, Chief Advisor of JICA Expert Team, Mr. Albert Mmbidi (Director, International Water Support) and Lesego Lekubu (Deputy Director, Operational Support)
10:10 - 10:25	The draft Business Plan of the NRW National Training: Ms. Kgoputso Sekgoilane (Training Manager, IBTC, DWS)
10:25 - 10:40	The draft design of the NRW National Training yard and equipment: Mr. Armand Basson (Project Manager, Construction West, DWS)
10:40 - 10:50	Comment by JICA Mission: Mr. Yoshiki Omura (Senior Advisor, JICA Monitoring Survey Mission)
10:50 - 11:10	Questions, answers and discussion
11:10 - 11:20	Noting/Acceptance/approval of proposals, the draft business plan, the draft design of yard and equipment, and conclusions from discussion
11:20 - 11:30	Closing Remarks by DWS: Mr. Vincent Monene (Director, Technical Engineering Services, DWS)

water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

SALGA
inspiring service delivery

3rd JCC Meeting Attendance Sheet

Place: IBTC, Roodeplaat

Date: 29th November, 2018

Time: 9:30 – 11:30

JICA

No	Initials & Surname	Organization	Email	Telephone	Signature
1.	[redacted]				
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

1/2

	Initials & Surname	Organization	Email	Telephone	Signature
11.	[redacted]				
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					

2/2

Appendix 3

water & sanitation
Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

SALGA
Inspiring service delivery

JICA

Project for Strengthening the Training Capacity of IBTC on Non-Revenue Water

Outline, Progress, Issues, Challenges, Solutions and Revision of Plan of Operations

(August - November 2018)

A 01 - 158

Presentation Outline

- Project Outline
- Progress of Activities
- Issues, Challenges and Solutions
- Revision of "Plan of Operation (PO)"

Project Outline

- **Project Period:**
  Phase-1: August 2017 to April 2019 (21 months)
  Phase-2: May 2019 to July 2020 (15 months)
- **Implementing Organization:**
  Department of Water and Sanitation (DWS) / Infrastructure Branch Training Centre (IBTC) at Roodeplaat Dam
- **Beneficiaries:**
  Participating Municipalities/staff, DWS/IBTC and their personnel and Facilitators
- **End Beneficiaries:**
  Customers / Consumers of water supplied by Municipalities

Outline of the Project (Project Design)

2017

Project

2020

Ex-post Project

2025

Outputs

1. Skill development, status-quo and challenges of NRW, and needs in municipalities are analyzed and shared with stakeholders.
2. IBTC's NRW Training capacity is improved.
3. The NRW Training is conducted with training improvement cycle.

Project Purpose

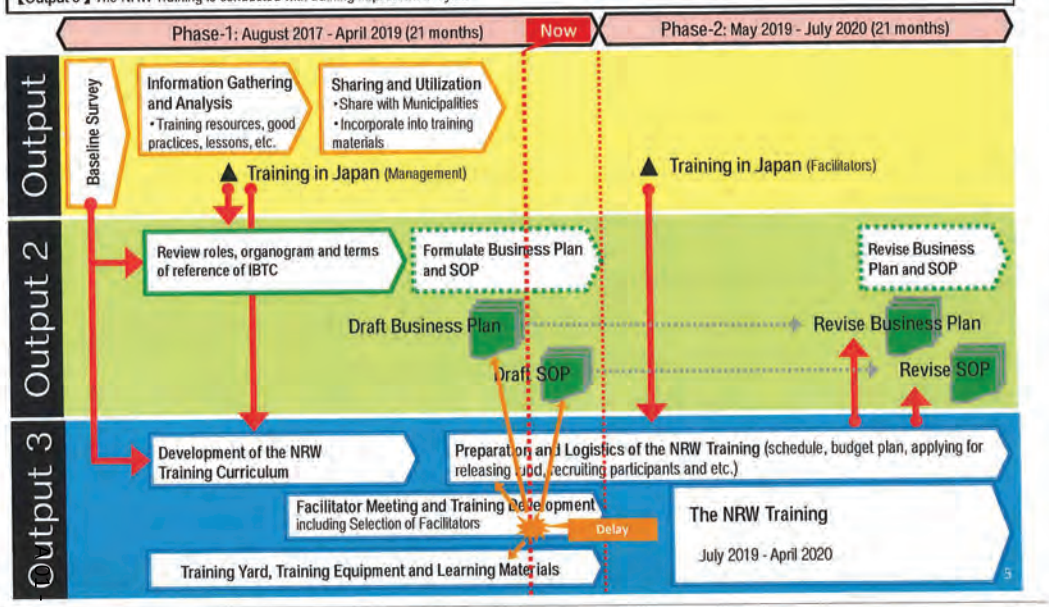
NRW management skills are developed for participating municipalities through the NRW Training by IBTC.

Overall Goal

Non-Revenue Water (NRW) management skills are utilized in NRW reduction projects of participating municipalities.

Project Outline (Timeframe)

【Overall Goal】 Non-Revenue Water (NRW) management skills are utilized in NRW reduction projects of participating municipalities.
【Project Purpose】 NRW management skills are developed for participating municipalities through the NRW Training by IBTC.
【Output 1】 Skill development, status-quo and challenges of NRW, and needs in municipalities are analyzed and shared with stakeholders.
【Output 2】 IBTC's NRW Training capacity is improved.
【Output 3】 The NRW Training is conducted with training improvement cycle.



Progress of Activities

Output 1: Skill development, status-quo and challenges of NRW, and needs in municipalities are analyzed and shared with stakeholders.

- **Activity 1-1: Conduct baseline survey on skills development and NRW in municipalities.**
  - Progress: 100%
- **Activity 1-2: Compile and analyze skills development and NRW in municipalities.**
  - Progress: 95%, Behind: 4.0 months
  - Remaining: Final review for seminar (Activity 1-5).

Progress of Activities

- **Activity 1-3: Review needs of skills development on NRW, existing qualifications, roles and responsibility of DWS/IBTC.**
  - Progress: 95%, Behind: 5.0 months
  - Remaining: Final review for seminar (Activity 1-5).
- **Activity 1-4: Benchmark water supply services and its skills development in Japan.**
  - Progress: 50%, Behind: 0.0 months
  - The first training in Japan was conducted in April 2018.
- **Activity 1-5: Hold a seminar and share on the results of the baseline survey and benchmark with stakeholders.**
  - Progress: 0%, Behind: 3.0 months
  - To be conducted as soon as the selection of Facilitators and the target participating Municipalities, jointly with SALGA

Progress of Activities

Output 2: IBTC's NRW Training capacity is improved.

- **Activity 2-1: Prepare the NRW Training Business Plan.**
  - Progress: 80%, Behind: 7.0 months
  - The draft version 1.0 is ready and be finalized by the end of Feb, 2019
- **Activity 2-2: Prepare and take procedures for funding the NRW Training.**
  - Progress: 60%, Behind: 3.0 months
  - Proposal was submitted to LGSETA, awaiting discussion with them
- **Activity 2-3: Prepare Terms of Reference for the NRW Training.**
  - Progress: 90%, Behind: 7.0 months
  - The terms of reference for staff for the NRW training has been drafted, which will be attached to the above Business Plan.

Progress of Activities

- **Activity 2-4: Prepare Standard Operation Procedures (SOP) of the NRW Training.**
  - Progress: 5%, Behind: 7.0 months
  - The basic orientation of preparation was discussed only, but SOP can be prepared based on outcomes from other activities.
- **Activity 2-5: Revise the SOP of the NRW Training through the activities of Output-3.**
  - In the Phase-2
- **Activity 2-6: Revise the NRW Training Business Plan through the activities of Output-3.**
  - In the Phase-2
- **Activity 2-7: Conduct capacity assessment of IBTC.**
  - To be conducted after the selection of Facilitators.

A01 - 150

Progress of Activities

Output 3: The NRW Training is conducted with training improvement cycle.

- **Activity 3-1: Design the NRW Training based on the results of Output-1.**
  - Completed.
- **Activity 3-2: Secure the site(s) for workplace of the NRW Training.**
  - Progress: 30%, Behind: 3.0 months
  - Delay in formal identification and selection of the target participating municipalities with challenge of DWS's financial constraints

Progress of Activities

- **Activity 3-3: Secure facilitators (experienced/skilled personnel on water reticulation or equivalent) for the NRW Training from DWS/IBTC and stakeholders.**
  - Progress: 30%, Behind: 9.0 months
  - Delay in formal identification and selection of facilitators with challenge of DWS's financial constraints
- **Activity 3-4: Develop training yard for the NRW Training at IBTC.**
  - Progress: 45%, Behind: 9.0 months
  - Draft designs and specifications are ready, and cost estimation is in progress prior to procurement.
- **Activity 3-5: Procure equipment, instruments/tools and materials for the NRW Training.**
  - Progress: 40%, Behind: 9.0 months
  - Draft list and specifications are ready, and cost estimation is in progress prior to procurement.

Progress of Activities

- **Activity 3-6: Develop teaching/learning materials for the NRW Training with incorporating good practices from baseline survey into the materials if any.**
  - Progress: 15%, Behind: 5.0 months
  - Material outlines have been developed for facilitator technical meetings.
- **Activity 3-7: Prepare and conduct Facilitator Technical Meetings by both facilitators and JICA Experts for the NRW Training.**
  - Progress: 0%, Behind: 1.0 months
  - Delayed due to delay in facilitator selection
- **Activity 3-8: Prepare for conducting the NRW Training**
  - In the Phase-2

Progress of Activities

- **Activity 3-9: Conduct the NRW Training by facilitators with support from JICA Experts.**
  - In the Phase-2
- **Activity 3-10: Monitor the NRW Training and feed the results back under training improvement cycle.**
  - In the Phase-2
- **Activity 3-11: Verify effects of the NRW Training in sampled municipalities.**
  - In the Phase-2

A01 - 161

Issues, Challenges and Solutions

1. **Revision of the Project Implementing Structure**
2. **Delay in Training Development**
3. **Relation with Qualification: Water Reticulation Practitioner**
4. **Acceleration and Sound Implementation**

1. Revision of the Project Implementing Structure

Background:

Ineffective project management and necessity of dedicated members have been highlighted in the previous JCC meetings.

Hereupon, DWS noted issues and proposed improvement in the following aspects prior to this JCC meeting:

- Governance and management of the Project
- Communication
- Funding
- Monitoring and reporting

Solution:

The Project Team proposed a new implementing structure consisting of the **Project Management Committee, Task Managers and Task Teams**, which shall be re-organized flexibly before each stage.

The Project Management Committee will prepared project **management rules and tools** by **the 11th of December** to ensure effectiveness and substantial results from the new structure.

	Stage	Period covered	Timeline
a	The first training development stage	Nov. 2018 to Jan. 2019 (proposed currently)	By now
b	The second training development stage	Feb. 2019 to Apr. 2019	By early Feb. 2019
c	Training implementation and monitoring stage	Jul. 2019 to the end of the Project	By Jun. 2019

2. Delay in Training Development

Background:

The Project Team drafted selection criteria and listed candidate facilitators and the target participating municipalities provisionally, but they have **not yet been formalized** to proceed securing facilitators.

Due to this **delay**, the Project **cannot hold Facilitator Technical Meetings in 2018 and involve facilitators in the process of training development**.

Solution:

The Project Management Committee and relevant task teams will **convene and develop strategy to fast track the selection** with support from relevant JICA Experts, then suggested **rescheduling the Project activities** and coping with this situation as below table.

2. Delay in Training Development

	Items	Timeline
a	To **complete selection criteria** and **listing candidate facilitators and the target participating municipalities**, then **obtain concurrence** of Project Management Committee.	By 7th of Dec. 2018
b	To prepare **terms of reference or equivalent of facilitator**.	By 7th of Dec. 2018
c	To **complete securing facilitators and the target participating municipalities** including **memorandum of understanding/agreement or equivalent**.	By the end of Feb. 2019
d	To hold **facilitator technical meetings** and/or **take alternative means such as individualized dialogues with each facilitator** in consideration of **DWS's financial constraint**. * This arrangement will be concluded by the 11th of Dec. 2018.	Feb. to Apr. 2019
e	To make **strategic use of training in Japan** for facilitators currently-scheduled in **the second half of May 2019**. Unless facilitators are secured with their specific names **by the end of Feb. 2019**, training in Japan cannot be implemented as planned, which causes **further delay**.	The second half of May 2019
f	To draft learning materials under **the initiatives of JICA Experts** prior to the above facilitator technical meeting and/or alternative means.	Feb. 2019

3. Relation with Qualification "Water Reticulation Practitioner"

Background:

The Project needs to have the **perspective of sustainability** of the NRW National Training with **synergic effects and possible collaboration** with the recently-developed qualification "Water Reticulation Practitioner" in training development and implementation.

3. Relation with Qualification "Water Reticulation Practitioner"

Actions:

a. The Project Team, particularly **Operational Support** unit of DWS and relevant JICA Experts, attends meetings of the group for developing qualification and training of Water Reticulation Practitioner, namely "Framework Programme for Research, Education & Training in the Water Sector (FETWater)".

b. Operational Support unit **coordinates and takes a role of interface**.

4. Acceleration and Sound Implementation of the Project

In the light of **early dissemination** of the NRW National Training with **positive impacts and motivation** to the Project members through the **tangible** training implementation

a. To **avoid modification of the Project activities** including scale-down of the NRW National Training **because of further delay**.
b. To make efforts by all means to **enhance involvement of the Project members** more than ever under the new implementing structure.
c. To **review and optimize** the required **leading role of JICA Experts** in certain activities in consideration of the facts such as capability and budget constraints of DWS.

Revision of Plan of Operations

According to the above progress, issues, challenges and proposed solutions, the Project Team suggests the **revision of Plan of Operations**, from currently Version 2 to Version 3.

The Project Team kindly requests JCC members to note/accept/approve the progress, proposed solutions, revision of PO.

Thank You.

THE END

water & sanitation
Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

National Non-Revenue Water Training Programme Proposed Business Plan

1. Purpose

To outline the implementing framework including business model, organogram, financial and personnel plans

PRESENTATION OUTLINE

1. Purpose of the BP
2. DWS Mandate
3. Purpose of the NRW National Training
4. Implementation Framework
   - 4.1 Proposed Business Model
   - 4.2 Roles and Responsibilities of DWS
   - 4.3 Proposed Organogram
   - 4.4 Financial Plan
5. Selection criteria
6. Institutional arrangement
7. Design concept
8. Curriculum
9. Sustainability

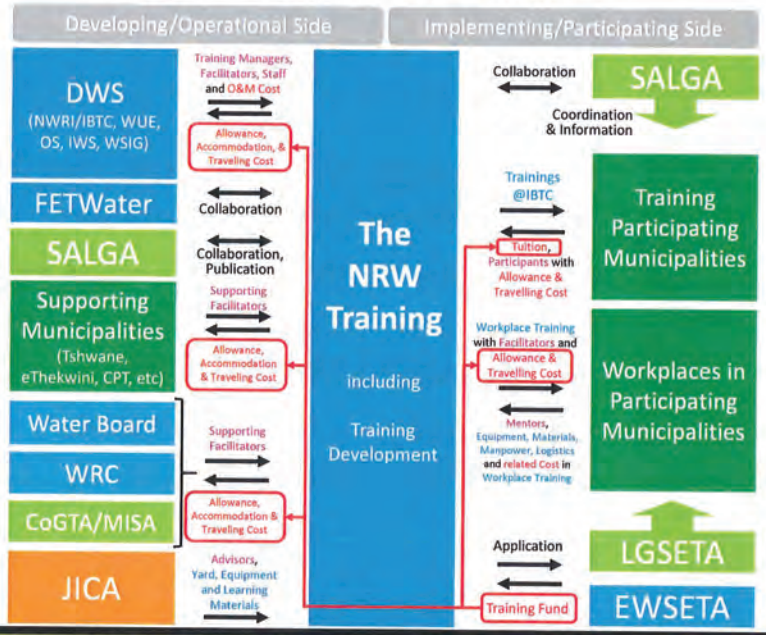
2. DWS Mandate

The NRW National Training was developed to fulfil the DWS's responsibilities: the national development, use, protection, conservation and demand management and control of water resources, and technical support to Municipalities as Water Services Authority (WSA).

3. Purpose of the NRW National Training

- To develop NRW management skills for participating Municipalities
- To make NRW management skills be utilised in NRW reduction projects of participating Municipalities.
- Eventually, to contribute NRW reduction of Municipalities nationwide

4.1 Proposed Business Model



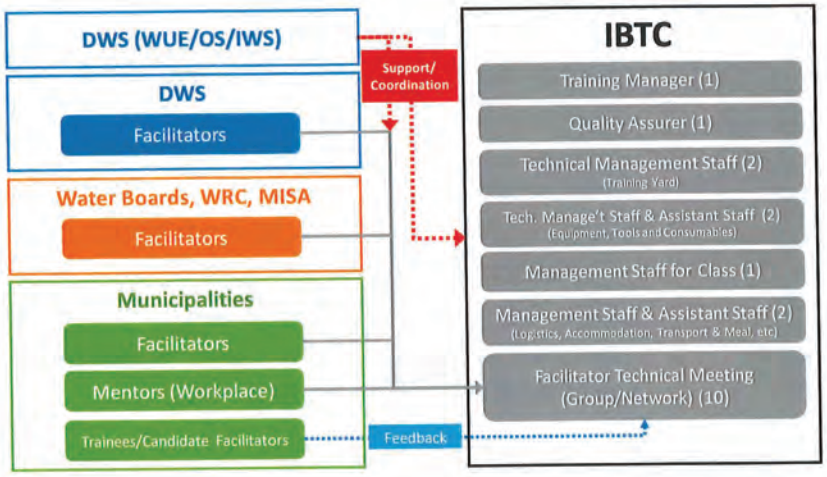
4. Implementation Framework

- Proposed Business Model
- Roles and Responsibilities of DWS
- Proposed Organogram
- Financial Plan

4.2 Roles and Responsibilities of DWS

- Develop, improve and manage programme
- Manage the allocate budget
- Arrange the necessary human resources
- Maintenance
- M & E
- Stakeholders liaison (facilitators, assessors, moderators, trainees, workplace mentors

4.3 Proposed Organogram (Conceptual Version)



5. Selection criteria

1. Targeted municipalities (to be reviewed & finalised by 7 Dec 2018)

- High NRW ratio
- Capacity to provide safe and stable water supply in 24 hours and 7 days
- Mapping of reticulation system (with accuracy by a yearly revision)
- Reliable digital billing data (with accuracy)
- Municipality's vision/policy/plan and ongoing efforts in tackling NRW (if any)
- Affordability to allocate 4 to 6 staff during the whole training period (trainees

4.4 Financial Plan

1. DWS arranges/allocates the necessary budget as well as secures funding with LGSETA and EWSETA
2. Costing items:

- Facilitators/assesors/ moderators
- Venues
- Advisory fees
- Tuition fee
- Accommodation, travel
- Meals & refreshment
- O & M
- Consumables
- Workplace
- Equipment, material
- publications

cont.....

2. Facilitators (to be reviewed & finalised by 7 Dec 2018)

- More than 10 years experiences of water supply reticulation design and O&M in a municipality (current active)
- Engineer, technicians and/or artisan
- Good interpersonal skill and communication
- A wide range of knowledge on water reticulation
- Ability to teach, facilitate and demonstrate practical skills and application of principles
- Provision of mentorship
- Writing skill of reports
- Computer skilled
- Willingness to travel

cont.....

3. Trainees

- Water conservation and water demand management (WCWDM)
- Operation and maintenance (O&M)
- Technician (or Technician-to-be)
- Superintendent/Foreperson/Supervisor/Site-Manager (Superintendent/Foreperson/Supervisor/Site-Manager-to-be)
- General workers, and Equivalent

Cont ...(b) **municipalities**

- Number of trainee(s) and mentor(s)
- Personal information of the trainee(s) and mentor(s)
- Level of education of trainee(s) and mentor(s)
- Experience and expertise of trainee(s) and mentor(s) in water services
- Period and schedule of the NRW National Training
- Institutional obligation (terms and conditions) between the DWS and his/her Municipality
- Validity period of the MOU/MOA or equivalent official letter(s)

6. Institutional arrangement

1. MoU should be concluded with the participating municipalities and be facilitated by Directorate : International water support
2. The content of the MoU should include:

(a) Facilitators

- Number of candidate facilitator(s)
- Personal information of the candidate facilitator(s)
- Level of education of facilitator(s)
- Experience of facilitator(s) in water services
- Period and schedule of the NRW National Training
- Institutional obligation (terms and conditions) between the DWS and his/her organization
- Validity period of the MOU/MOA or equivalent official letter(s)

7. Design concept

- Based on observation and previously conducted survey
- Not conduction accurate water balance analysis
- Initial stage "measuring/metering

Concepts

- planning principle.
- "problem-solving-oriented".

8. Curriculum

- Orientation and General Overview
- Bulk Meter Knowledge and Technique (including Pipe Fitting)
- Customer Meter Knowledge and Technique
- Reticulation Facility Planning and O&M (Valves, Fire Hydrant, Air Valves, etc.)
- Measurement Planning
- Water Balance Analysis
- NRW Reduction Strategy Planning & Presentation
- Fundamental Knowledge of Active Leakage Detection (Equipment) and Theory
- Fundamental Knowledge of Conditional Assessment

9. Sustainability

- M & E
- Quality assurance
- Review plans
- O & M
- Reporting
- Publication, marketing
- Information sharing
- Collaborations

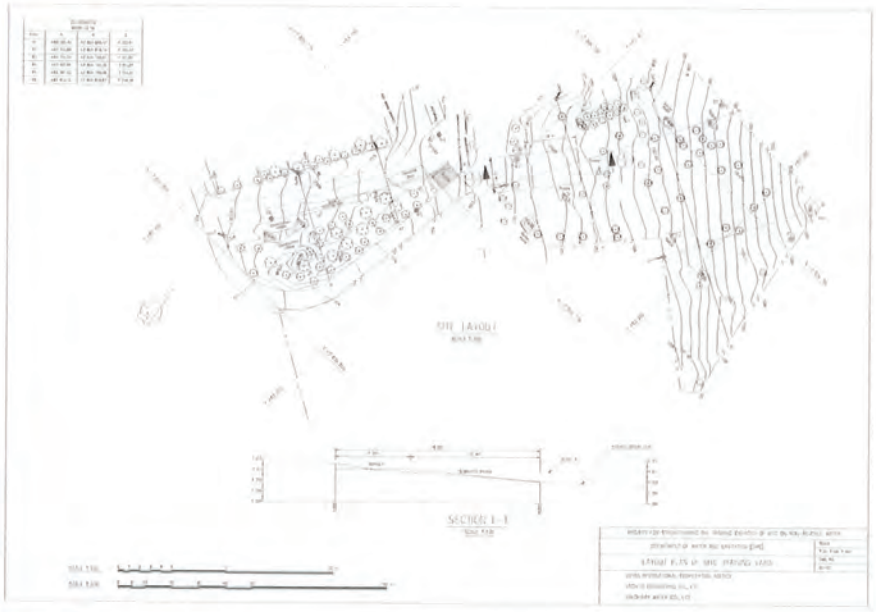
THE END
THANK YOU

water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

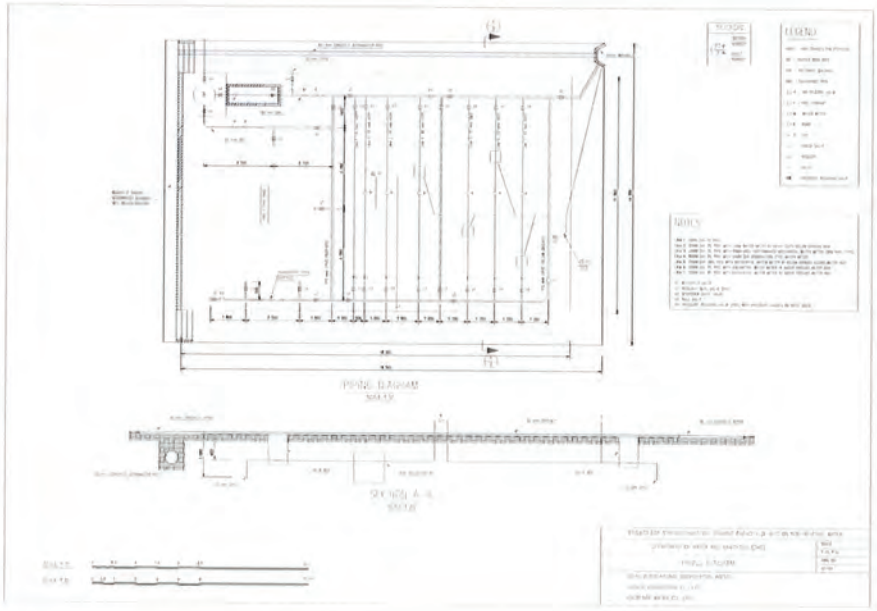
TRAINING YARD AND EQUIPMENT

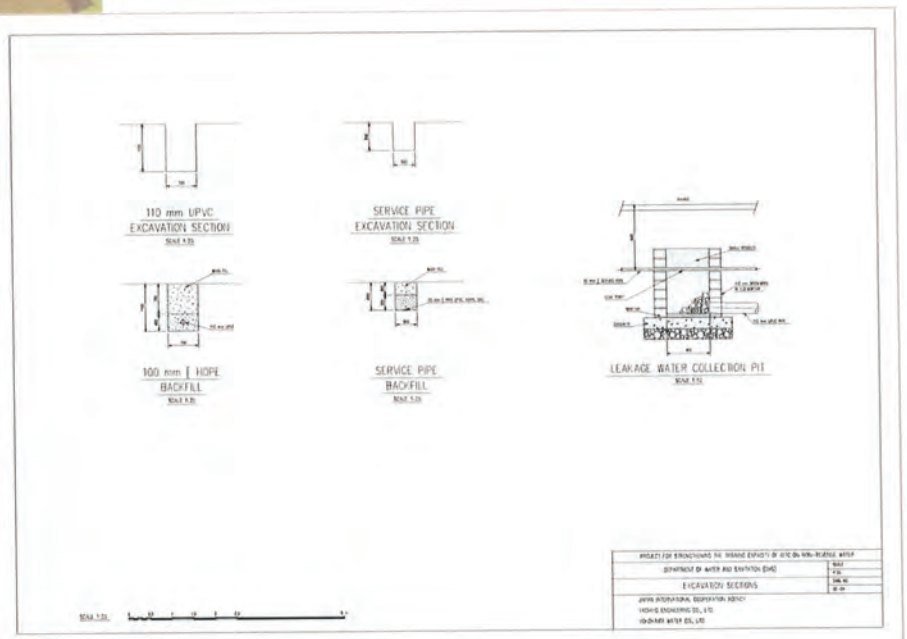
Date: 29 November 2018



Training Yard

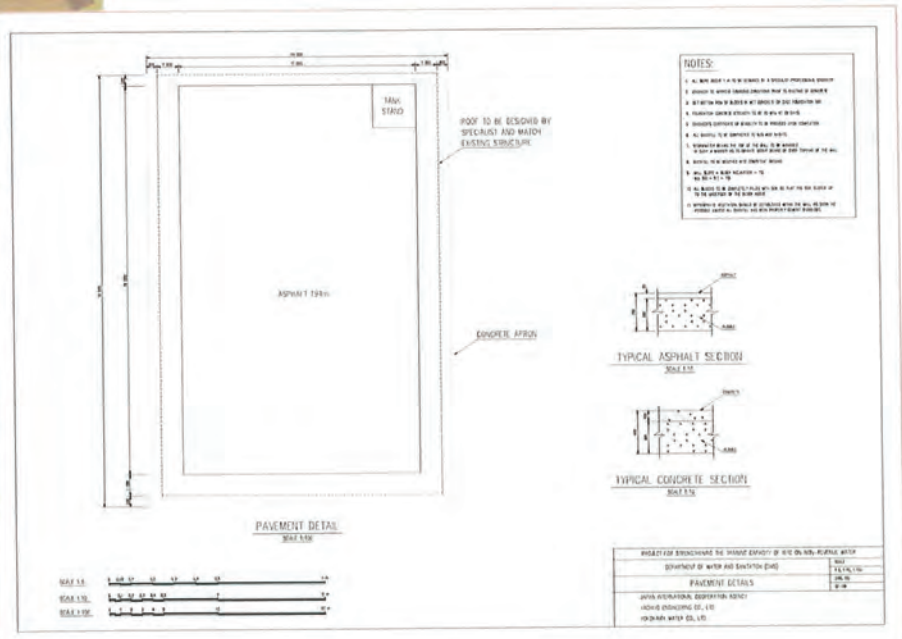
For Practical Training





Procurement for NRW Reduction Equipment

For Practical Training at Training Yard and Work Place



Concept

- Accurate data collection for "Water Balance" is Highest Priority
- Metering is the beginning of the "Water balance"
- Periodical Water Meter Reading and the system (SOP) is necessary for the "Water balance".
- Accurate "Water Balance" is necessary for the Leak Detection Program to know "How much is physical loss" in the target area

General Overview of the related Curriculum

- Bulk Meter Knowledge (including Inflow measurement)
- Customer Meter (including consumption measurement)
- Facility O&M, (Including roles of pipe fittings)
- Data Logging
- Water Balance
- NRW reduction strategy (including active leak control)
- Conditional Assessment (Asset Management)

Correlator and Ground Microphone

3. Correlator : 1 unit

- To measure distance to leak from pipe fittings

4. Ground Microphone : 3 units

- To detect loudest noise point at the surface.
- 2 unit at training yard and the additional one for work place

A 01 - 171

Data Logging (Flow & Pressure)

1. Ultrasonic Flow Meter : 2 units

- To measure input and output volume at DMA

2. Pressure Data Logger : 3 units

-With Pulse Logging-

- To measure pressure at inlet point and outlet point, and an additional point

Listening Sticks

5. Listening Stick (Amplifier): 1 unit

- To listen to leak sound at the pipe fittings with amplifier.

6. Listening Stick : 5 units

- To listen to leak sound at the pipe fittings (Primary Equipment)

Pipe Locators

7. Metallic Pipe Locator: 1 unit

- To locate Metallic Pipe
- A few metallic pipe is in SA.

8. Pulse Wave Generator to Locate PVC pipe: 1 units

- To generate sound at the PVC pipeline

Water Meter Test Kit

- Test kit: 1 unit
- To check accuracy of water meter

❖ Calibration is needed

❖ The accuracy is almost same as the other water meter

A 01 - 172

Hammer Drill and Boring Bar

9. Hammer Drill: 1 unit

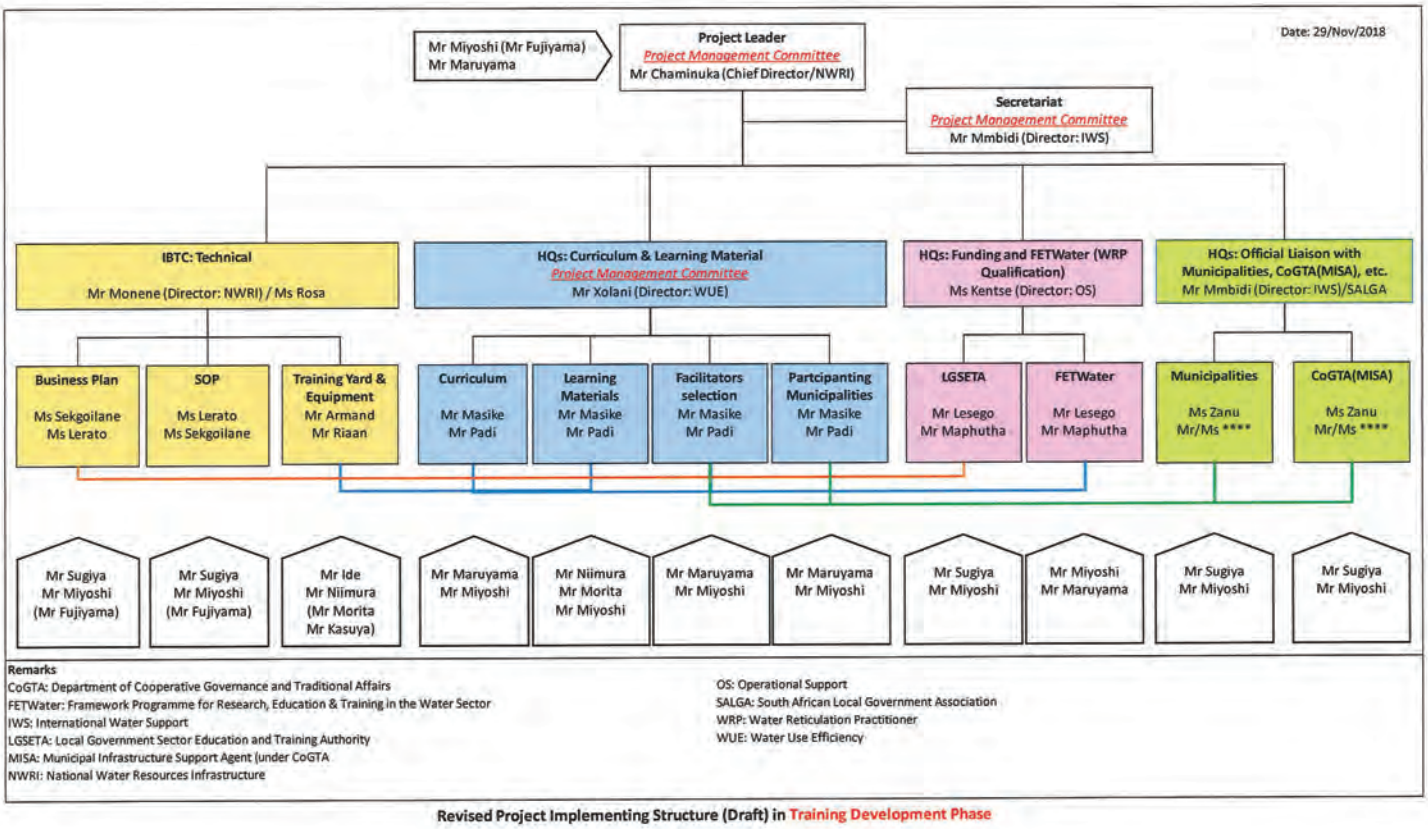
- To Make a bore hole to confirm leak sound and the water.

10. Boring Bar : 2 units

- To Make a borehole to confirm leak sound and the water

Training Yard Tools

For Practical Training



Revised Project Implementing Structure (Draft) in Training Development Phase

Tool list

Items	Spec	Brand 1st priority	Brand 2nd priority
Pickaxe		Estwing	Lasher
Spade		A.m. Leonard	Spear & Jackson
Crowbar		Ames True	Spear & Jackson
Set of screwdrivers		Felo	Bondhus
Allen key set	2mm - 14mm	Kt Pro Tools	Fix man
Water pump spanner		Rothenberger	Kinipex tools
250mm shifting spanner		Elora	Gedore
Spanners (Open and ring):	17mm	Elora	Gedore
Spanners (Open and ring):	18mm	Elora	Gedore
Spanners (Open and ring):	19mm	Elora	Gedore
Spanners (Open and ring):	24mm	Elora	Gedore
Tube socket:	17mm	Stahlwile	Gedore
Tube socket:	18mm	Stahlwile	Gedore
Tube socket:	19mm	Stahlwile	Gedore
Tube socket:	24mm	Stahlwile	Gedore
Socket rachet handle		Stahlwile	Gedore
Ratchet MCC 17mmx19mm		Stahlwile	Gedore
Ratchet MCC 19mmx24mm		Stahlwile	Gedore
Hacksaw		Snap-on	Eclipse
Wood crosscut saw		Snap-on	Eclipse
Bastard file		Drill America	Tekton
Wood file		Drill America	Tekton
Measuring tape 5m		Starrett	Kaufmann
Hammer 2 lb		Estwing	Thor Hammer
Hammer 4 lb		Estwing	Thor Hammer
Pipe wrench	10"	Ridgid Tool	Gedore
Pipe wrench	12"	Ridgid Tool	Gedore
Pipe wrench	14"	Ridgid Tool	Gedore
Pipe wrench	18"	Ridgid Tool	Gedore
Pipe wrench	24"	Ridgid Tool	Gedore
Valve key		any (high quality)	any (high quality)
Fire hydrant key		any (high quality)	any (high quality)

Appendix 7

water & sanitation
Department: Water and Sanitation
REPUBLIC OF SOUTH AFRICA

SALGA
Inspiring service delivery

Japan International Cooperation Agency
JICA

PROJECT FOR STRENGTHENING THE TRAINING CAPACITY OF IBTC ON NON-REVENUE WATER

BUSINESS PLAN FOR THE NON-REVENUE WATER NATIONAL TRAINING

Version 1.0 (Draft)

NOVEMBER 2018

DRAFT

Abbreviation

Abbreviation	Description
CoGTA	Department of Cooperative Governance and Traditional Affairs
DMA	District-Metred Area
DWS	Department of Water and Sanitation
EWSETA	Energy and Water Sector Education and Training Authority
FETWater	Framework Programme for Research, Education, & Training in the Water Sector
IBTC	Infrastructure Branch Training Centre (DWS)
IWS	International Water Support (DWS)
JICA	Japan International Cooperation Agency
LGSETA	Local Government Sector Education and Training Authority
MISA	Municipal Infrastructure Support Agent
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NRW	Non-Revenue Water
NWRI	National Water Resources Infrastructure (DWS)
OS	Operational Support (DWS)
O&M	Operation and Maintenance
PFMA	Public Finance Management Act
QCTO	Quality Council for Trades and Occupations
SALGA	South African Local Government Association
WCWDM	Water Conservation and Water Demand Management
WRP	Water Reticulation Practitioner (Qualification)
WSA	Water Services Authority
WSIG	Water Services Infrastructures Grant
WSP	Water Services Provider
WUE	Water Use Efficiency (DWS)

Table of Content

Page

Purpose of Business Plan
Management (Revision) Method
Record of Revisions
Management Representatives pf DWS

1 National Objective of the NRW National Training 1
2 Purpose of the NRW National Training 1
3 Implementing Framework of the NRW National Training 1
3-1 Proposed Business Plan 1
3-2 Roles and Responsibilities of DWS....3
3-3 Proposed Organogram....3
4 Implementation Resources Plan for the NRW National Training 4
4-1 Financial Plan 5
4-2 Personnel Plan for IBTC 6
4-3 Facilitator Securing Plan and Selection Criteria....7
5 Targets of the NRW National Training....8
5-1 Trainees....8
5-2 Selection Criteria....8
6 Institutional Arrangement with Stakeholders....9
6-1 Facilitators....9
6-2 Target Participating Municipalities (Trainees) and Workplace (Mentors) 9
7 Design Concepts, Outline of Training Curriculum and Implementation....10
7-1 Design Concepts of the NRW National Training....10
7-2 The NRW National Training Curriculum....10
7-3 Learning Materials....11
7-4 Training Yard and Equipment, and Operation and Maintenance....11
7-5 Procurement of Goods/Consumables....11
7-6 Quality Assurance of Training Implementation....12
7-7 Monitoring and Evaluation....12
7-8 Reporting....12

7-9 Three Years Implementation Plan....12
7-10 Annual Implementation Plan (from the 4th Year)....13

8 Dissemination, Advancement and Sustainability of the NRW National Training....13
8-1 Public Relations and Publication....13
8-2 Network and Platform of Knowledge/Information Sharing....13
8-3 Facilitator Recruiting/Developing System....13
8-4 Middle- and Long-Term Monitoring and its Review....14
8-5 Collaboration with Qualification: Water Reticulation Practitioner....14

Purpose of Business Plan

This Business Plan outlines the implementing framework including business model, organogram, financial and personnel plans, and so forth for "The Non-Revenue Water (NRW) National Training (hereinafter "The NRW National Training")" by the Department of Water and Sanitation (DWS), particularly Infrastructure Branch Training Centre (IBTC) of National Water Resources Infrastructure (NWRI) in collaboration with other relevant units such as Water Use Efficiency (WUE), Operational Support (OS), International Water Support (IWS) and relevant stakeholders.

Management (Revision) Method

The DWS is obliged to review and upgrade the Business Plan annually or when needed based on the feedback from facilitators and trainees in the NRW National Training. After the review of the feedback, the DWS may modify and/or add the contents of the Business Plan as necessary. The revised Business Plan shall be submitted to and approved by Chief Director: Engineering Services for every revision.

Record of Revisions

This Business Plan is
The Version 1.0: Submitted on 29th November 2018

Management Representatives of DWS:

Mr. Aloious Chaminuka
National Water Resources Infrastructure (NWRI)
Tel: [redacted]
Email: [redacted]

Mr. Vincent Monene
National Water Resources Infrastructure (NWRI)
Tel: [redacted]
Email: [redacted]

DRAFT

Ms. Mfomadi-Rahube Rosa Rose Molotelo, Centre Manager
Infrastructure Branch Training Centre (IBTC)
Tel: [redacted]
Email: [redacted]

Mr. Xolani Hadebe
Water Use Efficiency (WUE)
Tel: [redacted]
Email: [redacted]

Ms. Mathiba Kentse
Operational Support (OS)
Tel: [redacted]
Email: [redacted]

Mr. Albert Mmbidi
International Water Support (IWS)
Tel: [redacted]
Email: [redacted]

DRAFT

1. The NRW National Training in the DWS Mandate

The NRW National Training was shaped and developed to fulfil the DWS's responsibilities: the national development, use, protection, conservation and demand management and control of water resources, and technical support to Municipalities as Water Services Authority (WSA).

2. Purpose of the NRW National Training

The main purposes of the NRW National Training are:

- To develop NRW management skills for participating Municipalities
- To make NRW management skills be utilized in NRW reduction projects of participating Municipalities.
- Eventually, to contribute NRW reduction of Municipalities nationwide

3. Implementing Framework of the NRW National Training

3-1. Proposed Business Model

The Business Model of the NRW National Training is proposed as shown in Figure 1, and the primary responsibilities of stakeholders are shown in Table 1.

Table 1: Primary Responsibilities of Stakeholders

Organisation	Primary Responsibilities
DWS	• Implementation and O&M of the NRW National Training • Training Manager, Quality Assurer, O&M staff and so on • Facilitators • O&M cost
FETWater Group	• Collaboration (information sharing on qualification: Water Reticulation Practitioner)
SALGA	• Collaboration (communication, publication) • Coordination with Municipalities
Municipality	• Supporting Facilitators • Participants (Trainees) • Workplaces with Mentors/Supervisors
Water Boards, WRC, CoGTA(MISA)	• Supporting Facilitators
LGSETA	• Funding for the NRW National Training (Local Government related)
EWSETA	• Funding for the NRW National Training (Water Sector related)

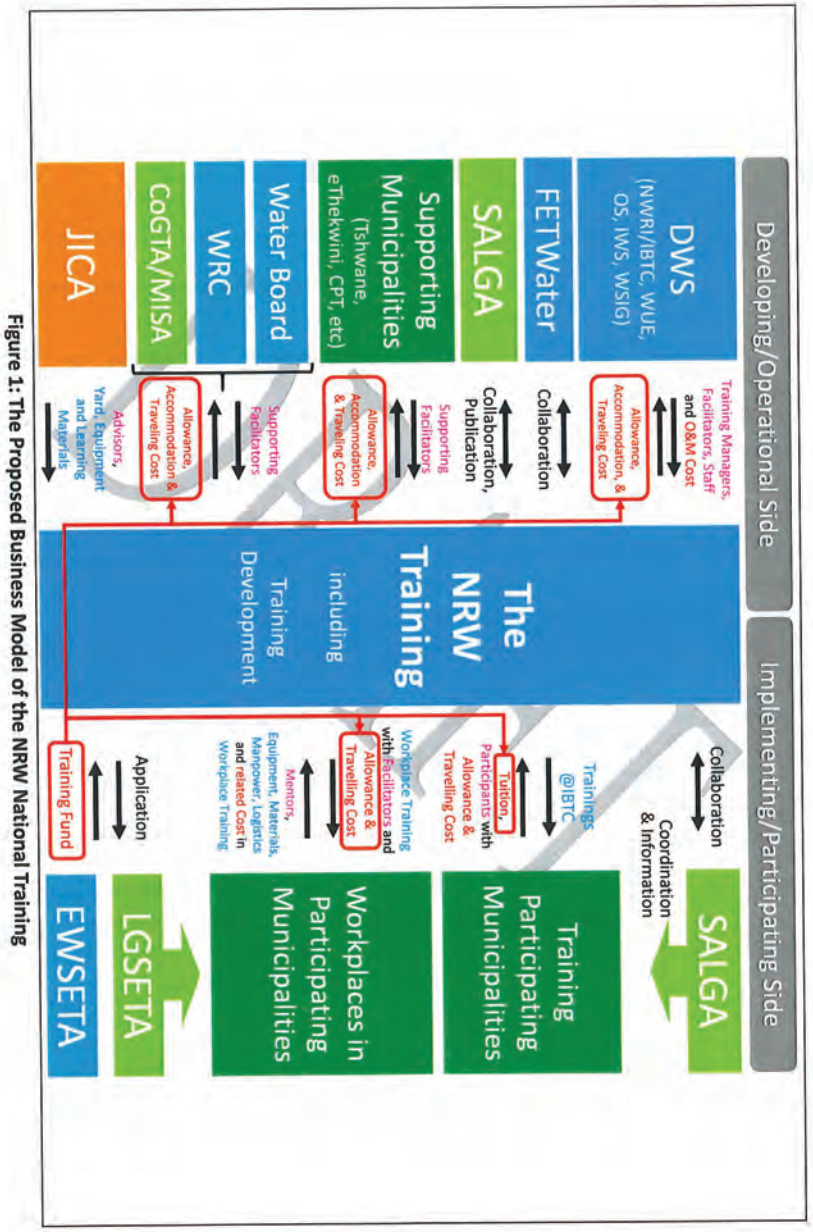


Figure 1: The Proposed Business Model of the NRW National Training

3-2. Roles and Responsibilities of DWS

The DWS takes roles and responsibilities on the implementation of the NRW National Training in cooperation with relevant municipalities described the above.

The DWS's major roles and responsibilities are:

(1) To develop, improve and manage the NRW National Training in line with the Business Plan and its revisions.

(2) To plan the NRW National Training programme, plan budget and manage the allocated budget for the training implementation and O&M.

(3) To arrange the necessary human resources such as a training manager, a quality assurer, O&M staff and so on at IBTC.

(4) To operate and maintain the class rooms, training yard and equipment properly and effectively.

(5) To collect feedbacks from facilitators and trainees in the NRW National Training and needs from the stakeholders, then evaluate and improve the NRW National Training.

(6) To liaise/coordinate internally or externally with stakeholders and ensure the implementation in terms of human resources, financial resources and information in particular by:

- Developing and securing facilitators (assessors, moderators) strategically.
- Selecting the target participating Municipalities including trainees' nomination fairly and squarely.
- Arranging the workplace training including mentors with the target participating Municipalities in line with the curriculum requirements.
- Applying for and securing funds from the relevant SETAs and so on.uiytuy345
- Publicizing the NRW National Training in collaboration with SALGA

3-3. Proposed Organogram

The proposed organogram to implement the NRW National Training is shown in Figure 2.

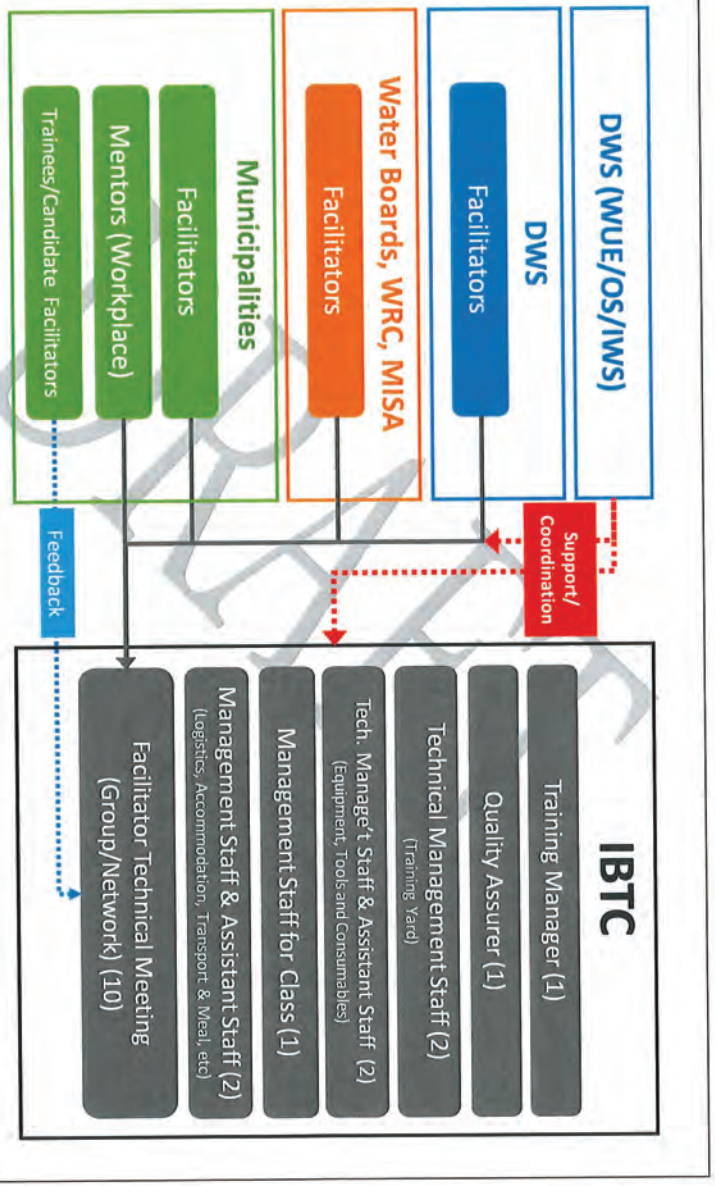


Figure 2: Proposed Organogram (Conceptual Version) to implement the NRW National Training

4. Implementation Resources Plan for the NRW National Training

4-1. Financial Plan

So that the DWS arranges/allocates the necessary budget as well as secures funding to implement the NRW National Training, the DWS shall have meetings/negotiations with the relevant sections and stakeholders such as LGSETA and EWSETA, then submit budget proposal and/or funding application without omission for the next fiscal year's programme.

Table 2 shows major expenditure items and possible financial resources.

Table 2: Expenditure Items and Financial Resources in the NRW National Training

Expenditure Items	Financial Resources
1. Training Development	
1-1. Facilitator Technical Meeting or equivalent	
1-1-1. Venue	DWS
1-1-2. Advisory Fee (if private organization)	Ditto
1-1-3. Allowance, accommodation and transport	Ditto
1-1-4. Meals & refreshment	Ditto
2. Training Implementation	
2-1. Facilitators/Assessor/Moderators	
2-1-1. Lecture Fee (if private organization)	LGESTA (EWSETA if applicable)
2-1-2. Allowance, accommodation and transport	Ditto
2-1-3. Meals & refreshment	Ditto
2-2. Trainees	
2-2-1. Tuition	LGESTA
2-2-2. Allowance, accommodation and transport	Municipalities (LGSETA if applicable)
2-2-3. Meals & refreshment	LGESTA
2-3. O&M Cost at IBTC	
2-3-1. Class-room training operation	DWS/IBTC (LGSETA if applicable)
2-3-2. Training yard	Ditto
2-3-3. Equipment	Ditto
2-3-4. Learning material preparation	Ditto
2-3-5. Consumables	Ditto
2-4. Workplace Training Cost (Facilitators)	
2-4-1. Advisory Fee (if private organization)	LGESTA
2-4-2. Allowance, accommodation and transport	Ditto
2-4-3. Meals & refreshment	Ditto
2-5. Workplace Training Cost (Mentors/Workplaces)	
2-5-1. Mentoring Fee(if private organization)	Municipalities (WSIG if applicable)
2-5-2. Equipment and Materials	Ditto
2-5-3. Manpower	Ditto

Expenditure Items	Financial Resources
2-5-4. Logistics	Ditto
2-5-5. Relevant Cost	Ditto
3. Monitoring and Evaluation	
3-1. Questionnaires and analysis	DWS/IBTC
3-2. Revision and improvement	DWS/IBTC
4. Publication and PR	
4-1. Website maintenance	DWS/IBTC, SALGA
4-2. Brochure distribution	DWS/IBTC, SALGA

4-2. Personnel Plan for IBTC

The DWS shall employ staff for IBTC required mainly for

- Implementation of the NRW National Training including operation and maintenance,
- Communication with stakeholders, and
- Facilitation of classes, logistics for facilitators and trainees.

Table 3 shows the proposed staff for the NRW National Training at IBTC in each position and its job descriptions.

Table 3: Proposed Staff for the NRW National Training at IBTC

Position (Number)		Job Description
1	Technical Management Staff for Training Yard **(Two)**	• Checking the condition of valves, a flow-meter, pressure gauge, customer meters, a storage tank, a line pump, etc. (Daily, Monthly and Yearly) • Minor repair of pipelines, fittings, valves, flow-meter, customer meters, storage tank, etc. • Cleaning of the training yard • Operation of the valves, pump and generator • Calibration of flow meters and customer meters • Estimate cost for procurement • Assistance for security guards in security monitoring • Take activities required for other yard issues
2	Technical Management Staff and Assistant Staff for Equipment, Tools and Consumables **(One each = Two)**	• Checking the condition of a generator, leak detectors, tools, etc. • Checking the connection of conductivity on equipment • Battery charging for equipment • Cleaning of the training yard • Procurement of the pipes and their fittings • Procurement of the spare parts of equipment • Management of inventory for all the equipment (Daily, Monthly and Yearly)

Position (Number)		Job Description
		• Assistance for security guards in security monitoring • Procurement of fuel for a generator
3	Management Staff for Class **(One)**	• Checking the condition of AC, lights, projector, PC, furniture, etc. • Arrangement of stationery such as white board, pens, note-pad • Printing the hand-outs and deliver them • Cleaning of the class facilities • Dealing with lost & found
4	Management Staff and Assistant Staff for Logistics, Accommodation, Transportation and Meal Service **(One each = Two)**	• Arrangement and management for accommodation, transportation and meal • Arrangement and management for cleaning of accommodation • Arrangement and management of repairs in accommodation
5	IT Engineer **(One)**	• Launch of the official website of the IBTC • O&M of the IBTC official website including periodic updating of the data and information on the site. • Arrangement of the training using PC and internet

Remarks: Position for No.4 and No.5 can be double as by existing DWS/IBTC staff.

4-3. Facilitator Securing Plan and Selection Criteria

For the NRW National Training until July 2020 at least, the DWS shall select and secure at least 10 facilitators from the DWS herself and stakeholders such as Municipalities, Water Boards, Water Research Commission (WRC) and Municipal Infrastructures Support Agent (MISA) in compliance with the following criteria.

- More than 10 years experiences of water supply reticulation design and O&M in a municipality (current active)
- Engineer, technicians and/or artisan
- Good interpersonal skill and communication
- A wide range of knowledge on water reticulation
- Ability to teach, facilitate and demonstrate practical skills and application of principles
- Provision of mentorship
- Writing skill of reports

5. Targets of the NRW National Training

The main targets of the NRW National Training are staff of Municipalities as Water Services Authority (WSA) and/or Water Services Provider (WSP), which are defined by National Water Act and Water Services Act.

The NRW National Training shall be implemented for all Municipalities of South Africa and eventually whoever wants to participate, however, the DWS selects the target participating Municipalities according to selection criteria in the short term to establish successful implementing model with positive effects and impacts.

5-1. Trainees

The NRW National Training expects ideally Trainees from the each target participating Municipality to be organized hierarchically and cross-sectorally as a team consisting of 4 to 6 staff from relevant sections such as:

- Water conservation and water demand management (WCWDM)
- Operation and maintenance (O&M), and
- Equivalent

Also, the NRW National Training targets the following staff of Municipalities, who have accumulated a certain amount of education, knowledge, experience and expertise:

- Technician (or Technician-to-be)
- Superintendent/Supervisor/Foreperson/Site-Manager (or Superintendent/Supervisor/Foreperson/Site-Manager-to-be)
- General workers, and
- Equivalent

5-2. Selection Criteria of the Target Participating Municipalities

The target participating Municipalities shall be selected in compliance with the following criteria. The Municipalities have:

- High NRW ratio
- Capacity to provide safe and stable water supply in 24 hours and 7 days
- Mapping of reticulation system (with accuracy by a yearly revision)
- Reliable digital billing data (with accuracy)
- Municipality's vision/policy/plan and ongoing efforts in tackling NRW (if any)

- Affordability to allocate 4 to 6 staff during the whole training period (trainees shall NOT be changed during the period)

After the selection procedure, the DWS shall announce the result of evaluation to the relevant stakeholders and the target participating Municipalities immediately.

6. Institutional Arrangement with Stakeholders

As a formalization of institutional arrangement, the DWS and stakeholders enter into Memorandum of Understanding (MOU), Memorandum of Agreement (MOA) or equivalent official letter(s) appropriately before the implementation of the NRW National Training, in collaboration with SALGA for Municipalities..

These official documents include and/or cover the following information for both "Facilitators" and "Target Participating Municipalities (Trainees) and Workplace (Mentors)":

6-1. Facilitators

- Number of candidate facilitator(s)
- Personal information of the candidate facilitator(s)
- Level of education of facilitator(s)
- Experience of facilitator(s) in water services
- Period and schedule of the NRW National Training
- Institutional obligation (terms and conditions) between the DWS and his/her organization
- Validity period of the MOU/MOA or equivalent official letter(s)

6-2. Target Participating Municipalities (Trainees) and Workplace (Mentors)

- Number of trainee(s) and mentor(s)
- Personal information of the trainee(s) and mentor(s)
- Level of education of trainee(s) and mentor(s)
- Experience and expertise of trainee(s) and mentor(s) in water services
- Period and schedule of the NRW National Training
- Institutional obligation (terms and conditions) between the DWS and his/her Municipality

- Validity period of the MOU/MOA or equivalent official letter(s)

7. Design Concepts, Outline of Training Curriculum and Implementation

7-1. Design Concepts of the NRW National Training

The NRW National Training has been designed based on the following observation and concepts:

Observation

- A lot of Municipalities have not conducted accurate water balance analysis with reliable data and information on NRW.
- Prior to taking NRW reduction measures effectively, a lot of Municipalities are still at the initial stage "measuring/metering" for proper analysis which leads to planning.

Concepts

- The NRW National Training focuses on water measurement, proper water balance analysis and planning in principle.
- The NRW National Training is "problem-solving-oriented" with secure positive effect and impact to participating Municipalities.
- The NRW National Training develops not only individuals (Trainees) but also organization (participating Municipalities) in tackling NRW.
- The NRW National Training curriculum is developed in consideration of occupational qualification standard model of QCTO: Theory, Practice and Workplace.

7-2. The NRW National Training Curriculum

Training curriculum of the NRW National Training are composed of the following modules as a standard, so it should be customized flexibly based on participants' requirements and conditions.

- Orientation and General Overview
- Bulk Meter Knowledge and Technique (including Pipe Fitting)
- Customer Meter Knowledge and Technique
- Reticulation Facility Planning and O&M (Valves, Fire Hydrant, Air Valves, etc.)
- Measurement Planning
- Water Balance Analysis
- NRW Reduction Strategy Planning & Presentation

- Fundamental Knowledge of Active Leakage Detection (Equipment) and Theory *
- Fundamental Knowledge of Conditional Assessment *

  *: These items should be targeted more intensively and in detail in the next stage.

The NRW National Training is a crash course of 6 weeks totally through the following stages as a training cycle (ideally for 2 or 3 participating Municipalities):

Stage 1: Theory & Practice: 1 week at IBTC
Stage 2: Workplace: 2 weeks in participating Municipalities with Mentor(s) with support from Facilitator(s)
Stage 3: Theory & Practice: 1 week at IBTC
Stage 4: Workplace: 2 weeks in participating Municipalities with Mentor(s) with support from Facilitator(s)

7-3. Learning Materials

Leaning materials are developed in accordance to the NRW National Training curriculum.

The DWS shall review, revise the leaning materials to meet the need from stakeholders.

7-4. Training Yard and Equipment, and Operation and Maintenance

Training yard and equipment are designed and procured in accordance to the NRW National Training curriculum.

Post the initial procurement of the training yard, equipment, instruments and materials[1], the DWS is obliged to manage them and ensure good operations and maintenance by securing the necessary budget to cover all the costs. The DWS shall review, expand, upgrade and re-engineer the training yard and equipment to meet the need from stakeholders. (* Operation and maintenance manuals will be prepared.)

7-5. Procurement of Goods/Consumables

The DWS is obliged to procure goods/consumables to implement the NRW National Training smoothly by securing the necessary budget to cover all the costs. The IBTC shall also procure the required goods/consumables in line with the Public Finance Management Act (PFMA) and the DWS's procurement regulations.

[1] These are referred to the current DWS- JICA agreement.

7-6. Quality Assurance of Training Implementation

The DWS, particularly IBTC shall assure quality of the NRW National Training by using a check list of the implementation regularly, for example every week. The DWS/IBTC shall prepared the check list for:

- Facilitators competency
- Lecture contents
- Training environment including class rooms, training yard and workplaces
- Requests from Facilitators/Trainees to improve the NRW National Training

7-7. Monitoring and Evaluation

The impacts of the NRW National Training are monitored, for example, by:

- Training evaluation questionnaire to trainees and his/her Municipality
- Updated information and/or report(s) on NRW of the participating Municipalities
- Change(s) in Vision/Strategy/Plans, organizational structure, implementation on NRW of the participating Municipalities
- Awareness and increased usage of the Training around stakeholders
- Accountability around NRW or water loss

These information shall be collected from stakeholders, particularly the participating Municipalities by means of questionnaire, email and website.

Then the DWS shall share the following knowledge, skills and information identified through the monitoring.

- Technical information on NRW
- Good practices and lessons learnt on NRW reduction strategic planning, political buy-in and efforts
- Funding information and application process

7-8. Reporting

The DWS, particularly IBTC prepares and submits an annual implementation report after the completion of the NRW National Training of the year. The report shall include the results of the analysis on the feedback from facilitators and trainees.

7-9. Three Years Implementation Plan

Since the NRW National Training is a new effort of the DWS in collaboration with stakeholders and also would be implemented through trial and error in the first three years as an initial developmental stage. Therefore, the DWS prepares an implementation plan for three years from the commencement of the NRW National Training.

7-10. Annual Implementation Plan (from the 4th Year)

From the 4th year, the DWS prepares an annual implementation plan of the NRW National Training by the month of budgetary request (every November) for the next fiscal year. The annual implementation plan shall reflect the lessons learned from the previous year's implementation, and shall be improved accordingly.

8. Dissemination, Advancement and Sustainability of the NRW National Training

8-1. Public Relations and Publication

The DWS, particularly IBTC in collaboration with SALGA enhances the public relations of the NRW National Training by every conceivable means such as website, official gazette, magazines and other related media. The DWS's website should include Q & A bulletin board to receive questions about the NRW National Training and to feed back.

An annual implementation report shall be published to announce the NRW National Training through the DWS's website.

8-2. Network and Platform of Knowledge/Information Sharing

The DWS aims at the NRW National Training be a springboard of both the network of the nationwide facilitators/practitioners and the future platform of knowledge/information sharing. Therefore, the DWS shall utilize the Training as an opportunity of workshops or equivalent among facilitators and trainees during training periods as well as utilize website as a bulletin board.

8-3. Facilitator Recruiting/Developing System

In order to ensure sustainability in securing facilitators from medium- and long-term viewpoint, the DWS shall keep recruiting candidates from the trainees participating in

the NRW National Training and stakeholders, then develop them as facilitators for the next training cycles as well as for establishing the nationwide facilitator network.

The facilitator recruiting/developing system will be discussed and established through the implementation of the NRW National Training.

8-4. Middle- and Long-Term Monitoring and its Review

The DWS monitors the NRW National Training in middle- and long-term basis to harmonise the actual needs and trend of capacity development in the water sector. The DWS takes responsibilities for the entire monitoring and its review, and shall alter/upgrade the NRW National Training if necessary.

8-5. Collaboration with Qualification: Water Reticulation Practitioner

From medium- and long-term perspective, collaboration with FETWater programme for the new accredited full qualification: Water Reticulation Practitioner (WRP) will become a contributing factor for further advancement and sustainability of the NRW National Training.

The NRW National Training aims at synergic effects as a pilot practical training methodology to WRP training in the future.

(End)

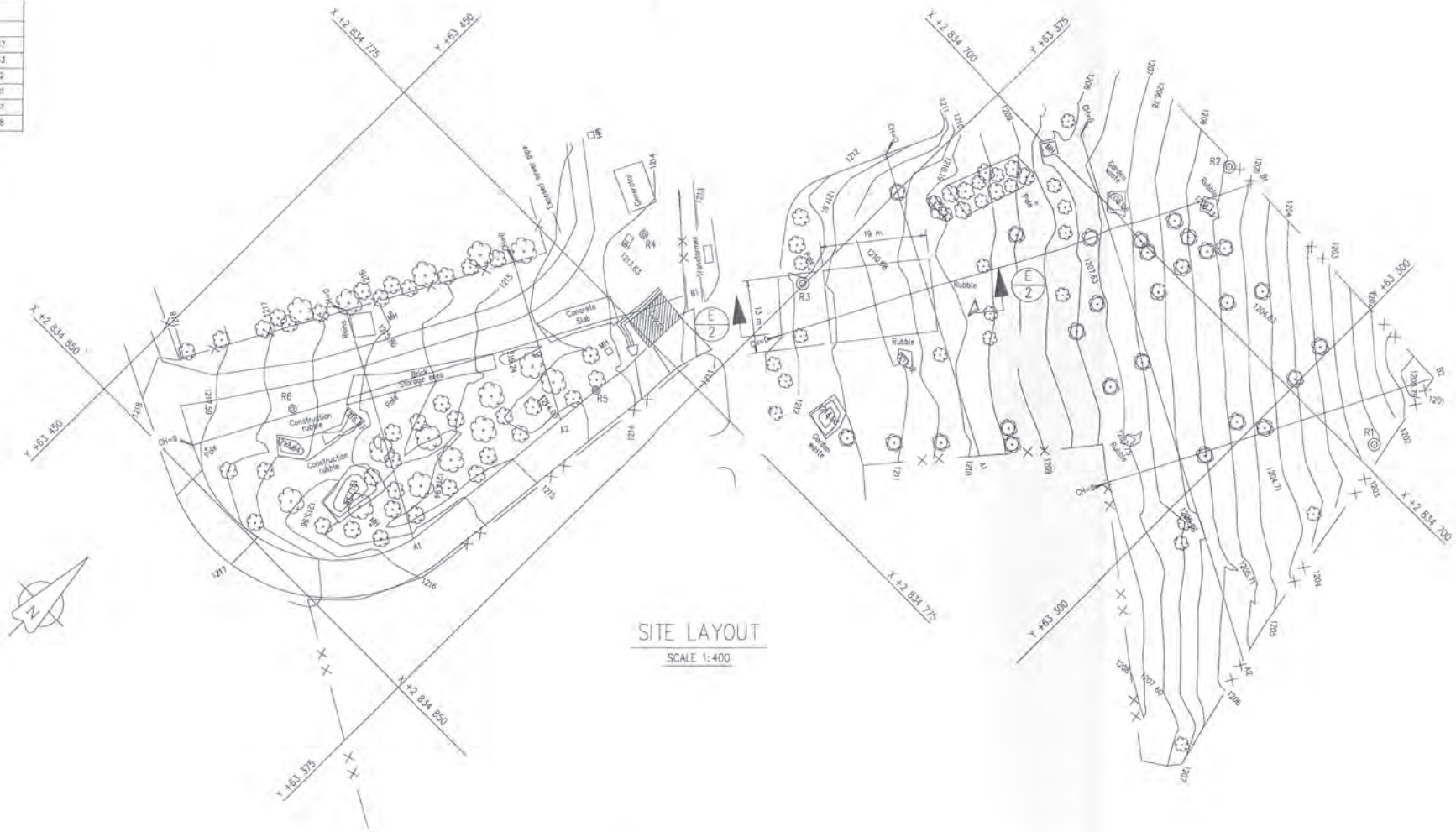
LOCALITY PLAN

SCALE 1:100 000

SCALE 1:100 000 0 5 000 10 000 20 000 m

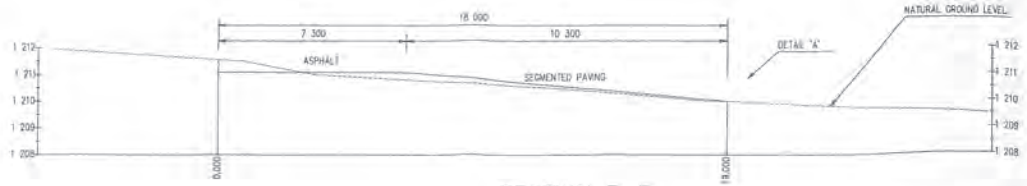
PROJECT FOR STRENGTHENING THE TRAINING CAPACITY OF IBTC ON NON-REVENUE WATER	
DEPARTMENT OF WATER AND SANITATION (DWS)	SCALE 1:100 000
LOCALITY PLAN	DWG. NO. GE-01
JAPAN INTERNATIONAL COOPERATION AGENCY YACHIYO ENGINEERING CO., LTD. YOKOHAMA WATER CO., LTD.	

CO-ORDINATES WGS84 LO 19E			
POINT	Y	X	Z
R1	+63 282,40	+2 834 696,42	1 202,67
R2	+63 335,58	+2 834 679,74	1 205,43
R3	+63 375,23	+2 834 748,60	1 211,92
R4	+63 401,98	+2 834 762,38	1 213,91
R5	+63 387,90	+2 834 788,06	1 214,41
R6	+63 423,70	+2 834 828,62	1 215,78



SITE LAYOUT

SCALE 1:400



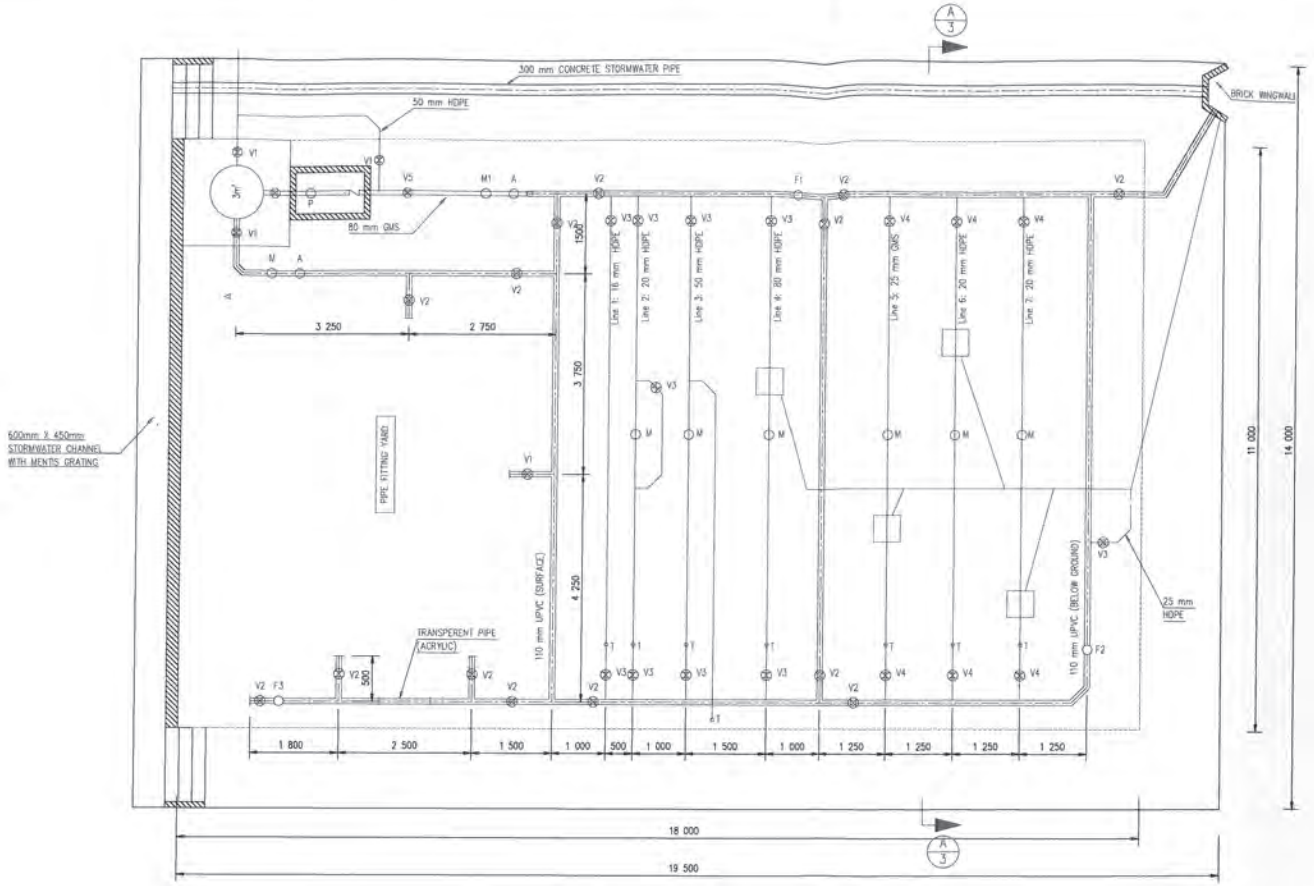
SECTION E-E

SCALE 1:100

SCALE 1:100 0 1 2 3 4 5 10 20 m

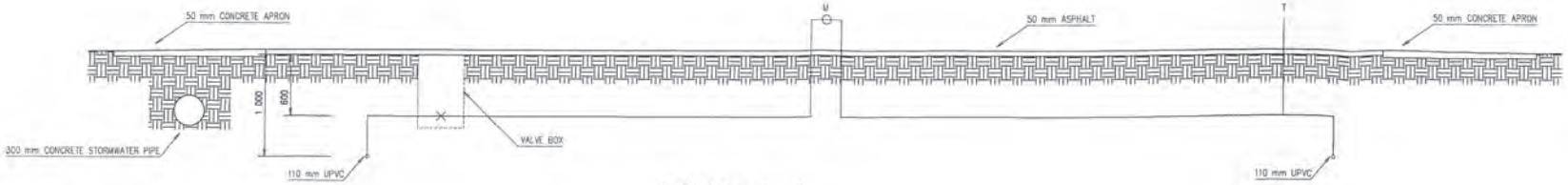
SCALE 1:500 0 5 10 20 30 40 50 100 m

PROJECT FOR STRENGTHENING THE TRAINING CAPACITY OF IBTC ON NON-REVENUE WATER	
DEPARTMENT OF WATER AND SANITATION (DWS)	SCALE 1:20, 1:100, 1:500
LAYOUT PLAN OF IBTC TRAINING YARD	DWG. NO. GE-02
JAPAN INTERNATIONAL COOPERATION AGENCY YACHIYO ENGINEERING CO., LTD. YOKOHAMA WATER CO., LTD.	



PIPING DIAGRAM

SCALE 1:50



SECTION A–A

SCALE 1:25

SECTION

07 / 3 — SECTION NUMBER / SHEET NUMBER

LEGEND

HDPE - HIGH DENSITY POLYETHYLENE
DIP - DUCTILE IRON PIPE
PVC - POLYVINYL CHLORIDE
GMS - GALVANISED PIPE
A - AIR RELEASE VALVE
F - FIRE HYDRANT
M - WATER METER
P - PUMP
T - TAP
- CHECK VALVE
- REDUCER
- VALVE
- PRESSURE REDUCING VALVE

NOTES

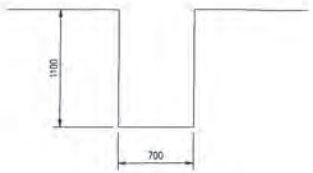
Line 1: 16MM DIA. PE PIPE
Line 2: 20MM DIA. PE PIPE WITH 15MM WATER METER IN HEAVY DUTY BELOW GROUND BOX
Line 3: 50MM DIA. PE PIPE WITH 40MM HIGH PERFORMANCE MECHANICAL WATER METER (WOLTMAN TYPE)
Line 4: 80MM DIA. PE PIPE WITH 50MM DIA. COMBINATION TYPE WATER METER
Line 5: 25MM DIA. GMS PIPE WITH INFERENTIAL WATER METER IN BELOW GROUND ECOND METER BOX
Line 6: 20MM DIA. PE PIPE WITH VOLUMETRIC WATER METER IN ABOVE GROUND METER BOX
Line 7: 20MM DIA. PE PIPE WITH INFERENTIAL WATER METER IN ABOVE GROUND METER BOX

V1: BUTTERFLY VALVE
V2: RESILIENT SEAL VALVE (RSV)
V3: STOPCOCK (GATE VALVE)
V4: BALL VALVE
V5: PRESSURE REDUCING VALVE (PRV) WITH PRESSURE GAUGES ON BOTH SIDES

SCALE 1:25 — 0 0.5 1 1.5 2 2.5 5 m

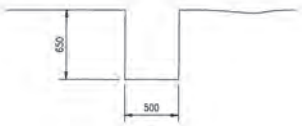
SCALE 1:50 — 0 0.5 1 2 3 4 5 10 m

PROJECT FOR STRENGTHENING THE TRAINING CAPACITY OF IBTC ON NON-REVENUE WATER	
DEPARTMENT OF WATER AND SANITATION (DWS)	SCALE 1:25, 1:50
PIPING DIAGRAM	DWG. NO. GE-03
JAPAN INTERNATIONAL COOPERATION AGENCY YACHIYO ENGINEERING CO., LTD. YOKOHAMA WATER CO., LTD.	



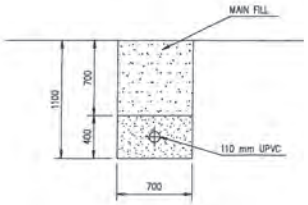
110 mm UPVC
EXCAVATION SECTION

SCALE 1:25



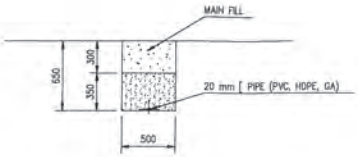
SERVICE PIPE
EXCAVATION SECTION

SCALE 1:25



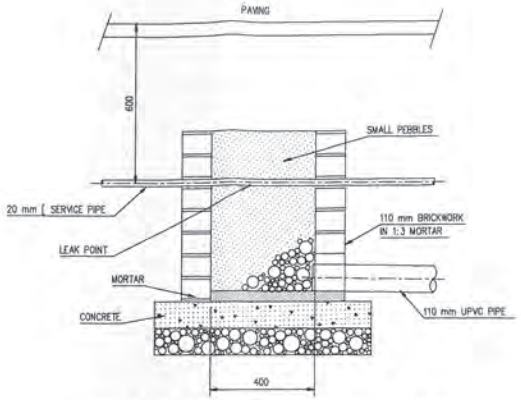
100 mm [HDPE
BACKFILL

SCALE 1:25



SERVICE PIPE
BACKFILL

SCALE 1:25



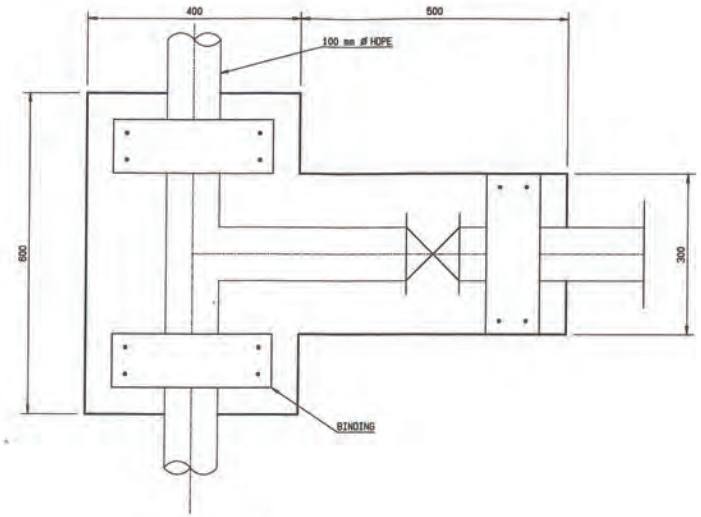
LEAKAGE WATER COLLECTION PIT

SCALE 1:10

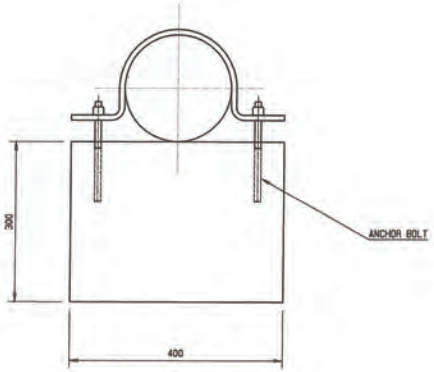
SCALE 1:25 0 0.5 1 1.5 2 2.5 5 m

PROJECT FOR STRENGTHENING THE TRAINING CAPACITY OF IBTC ON NON-REVENUE WATER	
DEPARTMENT OF WATER AND SANITATION (DWS)	SCALE: 1:25
EXCAVATION SECTIONS	DWG. NO. DE-04
JAPAN INTERNATIONAL COOPERATION AGENCY YACHIYO ENGINEERING CO., LTD. YOKOHAMA WATER CO., LTD.	

CONCRETE - PIPE SUPPORT

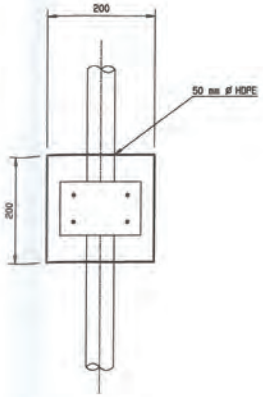


PLAN VIEW
SCALE 1:5

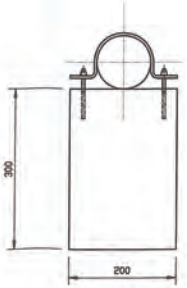


SECTION
SCALE 1:5

50 mm ø HDPE - PIPE SUPPORT



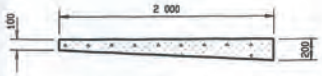
PLAN VIEW
SCALE 1:5



SECTION
SCALE 1:5

CONCRETE FOUNDATION FOR WATER TANK

SCALE 1:25



SECTION D-D

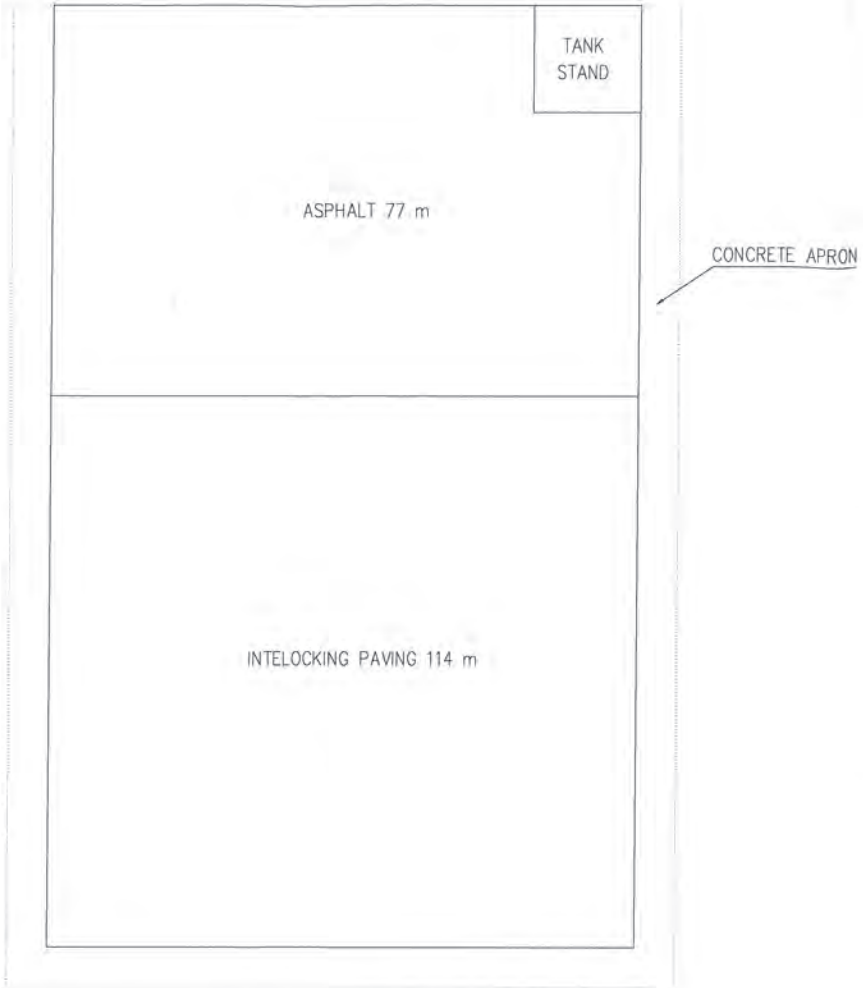
SCALE 1:25

SCALE 1:5 0 0,05 0,1 0,2 0,3 0,4 0,5 1 m

SCALE 1:25 0 0,5 1 1,5 2 2,5 5 m

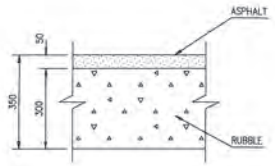
PROJECT FOR STRENGTHENING THE TRAINING CAPACITY OF IBTC ON NON-REVENUE WATER	
DEPARTMENT OF WATER AND SANITATION (DWS)	SCALE 1:5, 1:25
CONCRETE DETAILS	DWG. NO. GE-05

JAPAN INTERNATIONAL COOPERATION AGENCY
YACHIYO ENGINEERING CO., LTD.
YOKOHAMA WATER CO., LTD.



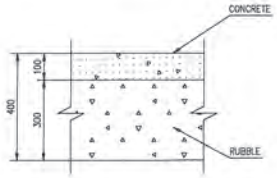
PAVEMENT DETAIL

SCALE 1:100



TYPICAL ASPHALT SECTION

SCALE 1:10



TYPICAL CONCRETE SECTION

SCALE 1:10

NOTES:

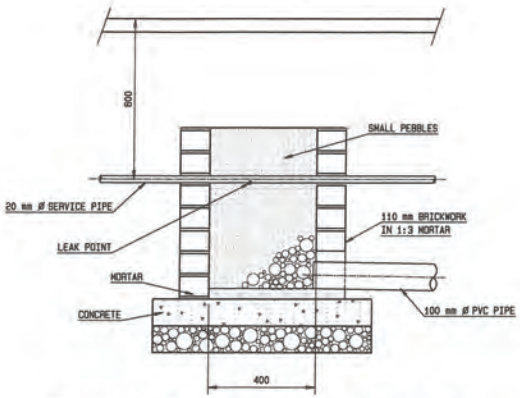
1. ALL WORK ABOVE 1 m TO BE DESIGNED BY A SPECIALIST PROFESSIONAL ENGINEER.
2. ENGINEER TO APPROVE FOUNDING CONDITIONS PRIOR TO CASTING OF CONCRETE.
3. SET BOTTOM ROW OF BLOCKS IN WET CONCRETE OR CAST FOUNDATION NIB.
4. FOUNDATION CONCRETE STRENGTH TO BE 20 MPa AT 28 DAYS.
5. ENGINEER'S CERTIFICATE OF STABILITY TO BE PROVIDED UPON COMPLETION.
6. ALL BACKFILL TO BE COMPACTED TO 93% MOD AASHTO.
7. STORMWATER BEHIND THE TOP OF THE WALL TO BE MANAGED IN SUCH A MANNER AS TO OBVIATE SCOUR BEHIND OF OVER TOPPING OF THE WALL.
8. BACKFILL TO BE BENCHED INTO COMPETENT GROUND.
9. WALL SLOPE + BLOCK INCLINATION = 70]
   e.g. 65] + 5 | = 70]
10. ALL BLOCKS TO BE COMPLETELY FILLED WITH SOIL SO THAT THE SOIL SLOPES UP TO THE UNDERSIDE OF THE BLOCK ABOVE.
11. APPROPRIATE VEGETATION SHOULD BE ESTABLISHED WITHIN THE WALL AS SOON AS POSSIBLE UNLESS ALL BACKFILL HAS BEEN PROPERLY CEMENT STABILISED.

SCALE 1:5 — 0 0.05 0.1 0.2 0.3 0.4 0.5 1 m

SCALE 1:10 — 0 0.1 0.2 0.3 0.4 0.5 1 2 m

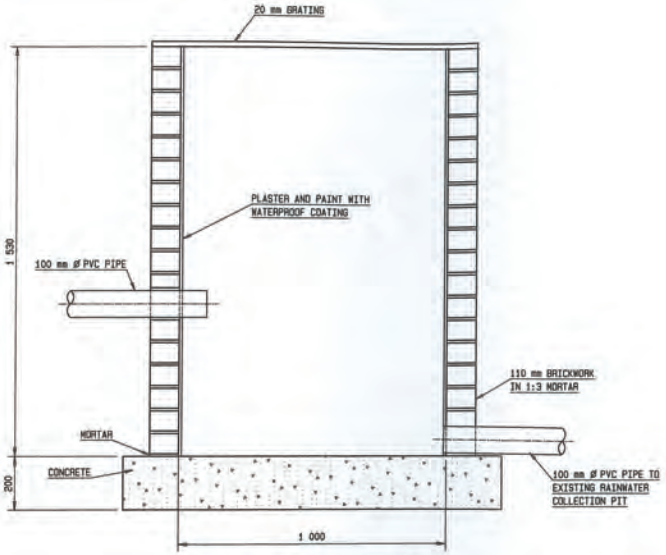
SCALE 1:100 — 0 1 2 3 4 5 10 20 m

PROJECT FOR STRENGTHENING THE TRAINING CAPACITY OF IBTC ON NON-REVENUE WATER	
DEPARTMENT OF WATER AND SANITATION (DWS)	SCALE 1:5, 1:10, 1:100
PAVEMENT DETAILS	DWG. NO. GE-06
JAPAN INTERNATIONAL COOPERATION AGENCY YACHIYO ENGINEERING CO., LTD. YOKOHAMA WATER CO., LTD.	



LEAKAGE WATER COLLECTION PIT

SCALE 1:10



RUNOFF CATCH PIT

SCALE 1:10

LEGEND

HDPE - HIGH DENSITY POLYETHYLENE
DIP - DUCTILE IRON PIPE
PVC - POLYVINYL CHLORIDE
GP - GALVANISED PIPE
A - AIR RELEASE VALVE
F - FIRE HYDRANT
M - WATER METER
P - PUMP
T - TAP
- CHECK VALVE
- REDUCER
- VALVE
- PRESSURE REDUCING VALVE

SCALE 1:10 0 0.1 0.2 0.3 0.4 0.5 1 2 m

PROJECT FOR STRENGTHENING THE TRAINING CAPACITY OF IBTC ON NON-REVENUE WATER	
DEPARTMENT OF WATER AND SANITATION (DWS)	SCALE 1:10
DRAINAGE LAYOUT	DWG. NO. GE-07
JAPAN INTERNATIONAL COOPERATION AGENCY YACHIYO ENGINEERING CO., LTD. YOKOHAMA WATER CO., LTD.	

List of Equipment proposed for the NRW National Training

No	Item	Pic	Purpose	Unit	Reasons for the Units (Numbers)
1	Ultrasonic Flowmeter		To measure input volume	2	To measure input and output at the work place. To measure 2 points at the same time to compara the flow datas.
2	Preessure logger		To measure water pressure	3	To be able to log pulse signal from Bulk meter To be able to compare points of inlet, end point , and some trouble point (leak, block,)
3	Leak noise correlator		To measure distance to leakage from sensors	1	
4	Ground Microphone		To detect loudest noise point of surface	3	Use it by 2 teams at the same time. And a spare unit for work place
6	PVC Locator		To locate PVC or ACP pipe line	1	To locate the trial for PVC detection
8	Metal Pipe Locator		To locate Metallic Pipe or Electric Cables	1	To use in work place
9	Buried Valve Locator		To detect buried water valve	1	
10	Electric Listening Stick		To listen to leak sound at pipe fittings	1	
12	Listening Stick		To listen to leak sound at pipe fittings (Analogue)	5	3 units for training 2 units for work place
13	Walking Measure		To measure distance of ground surface	1	Measure distance when using Correlator
14	Hammer Drill		To make a 19mm hole to asphalt to insert listening stick to confirm underground leakage	1	To use work place
15	Boring Bar		To bore a hole (12-15mm) to insert listening stick to confirm underground leakage	2	To use work place
16	Reference meter		To check accuracy of mecanical water meter	1	Periodical Manintenance, Meter Calibration is needed.

Appendix 9

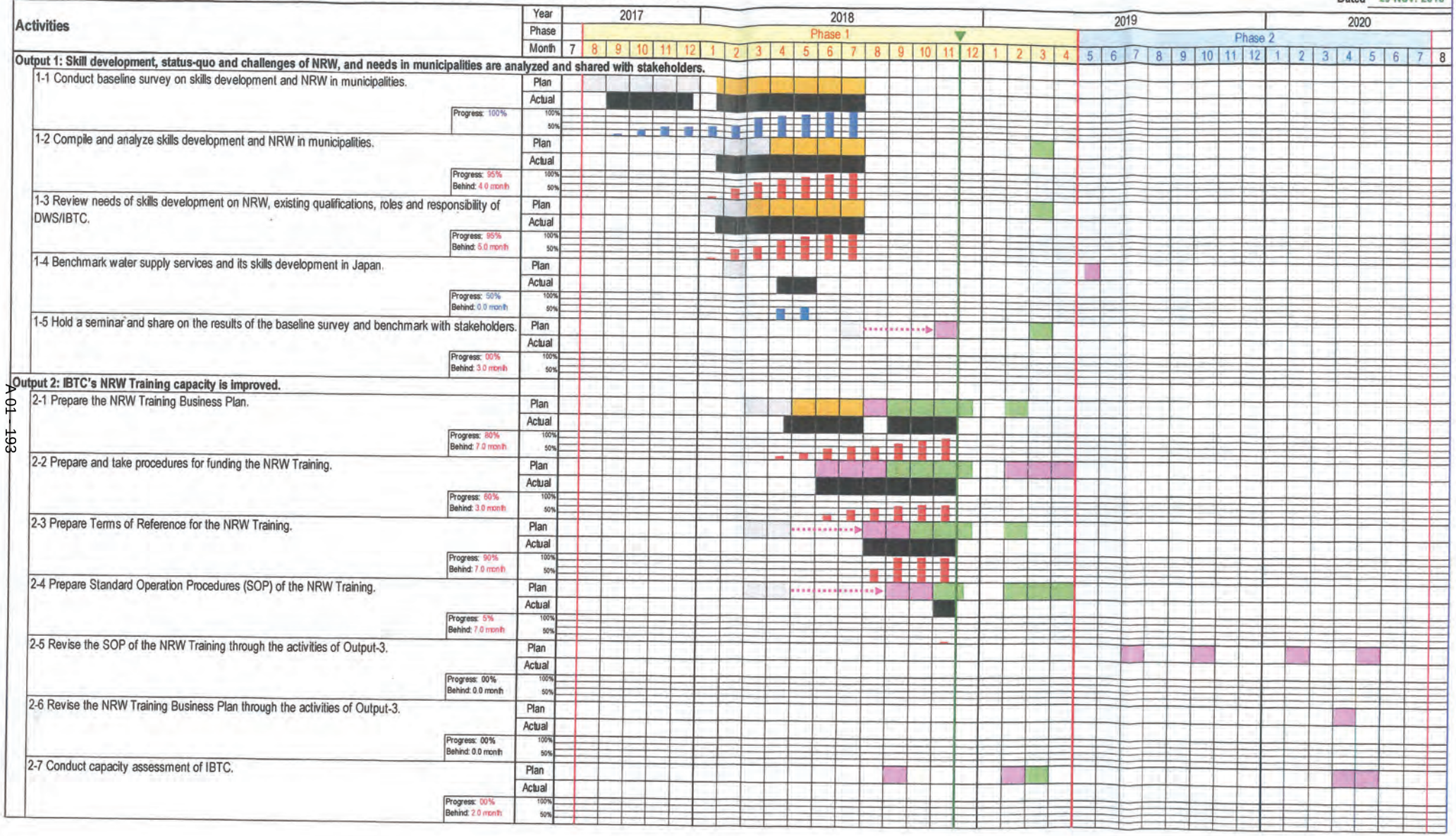
Project Monitoring Sheet II (Revision of Plan of Operation)

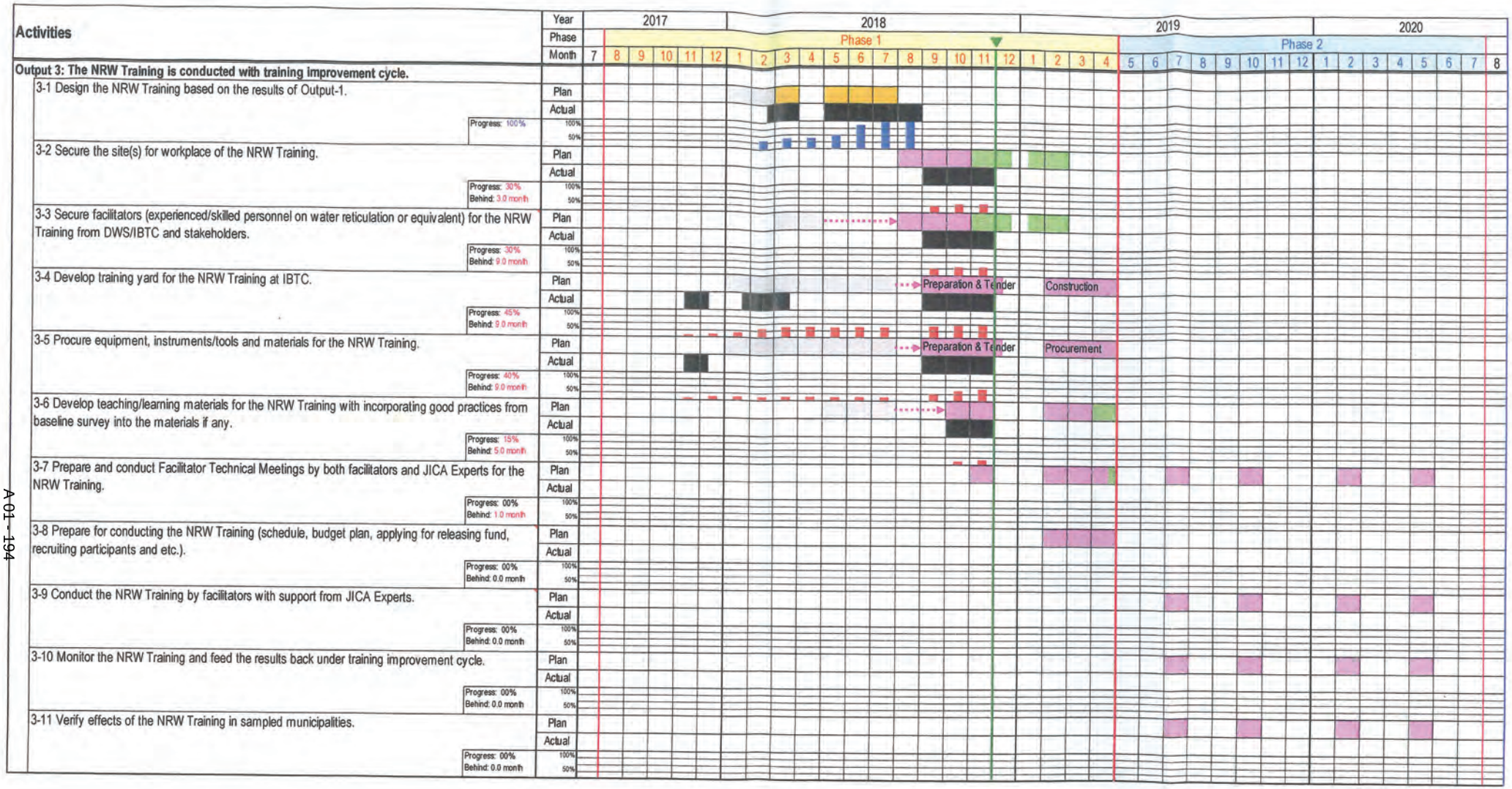
PO2 to 3

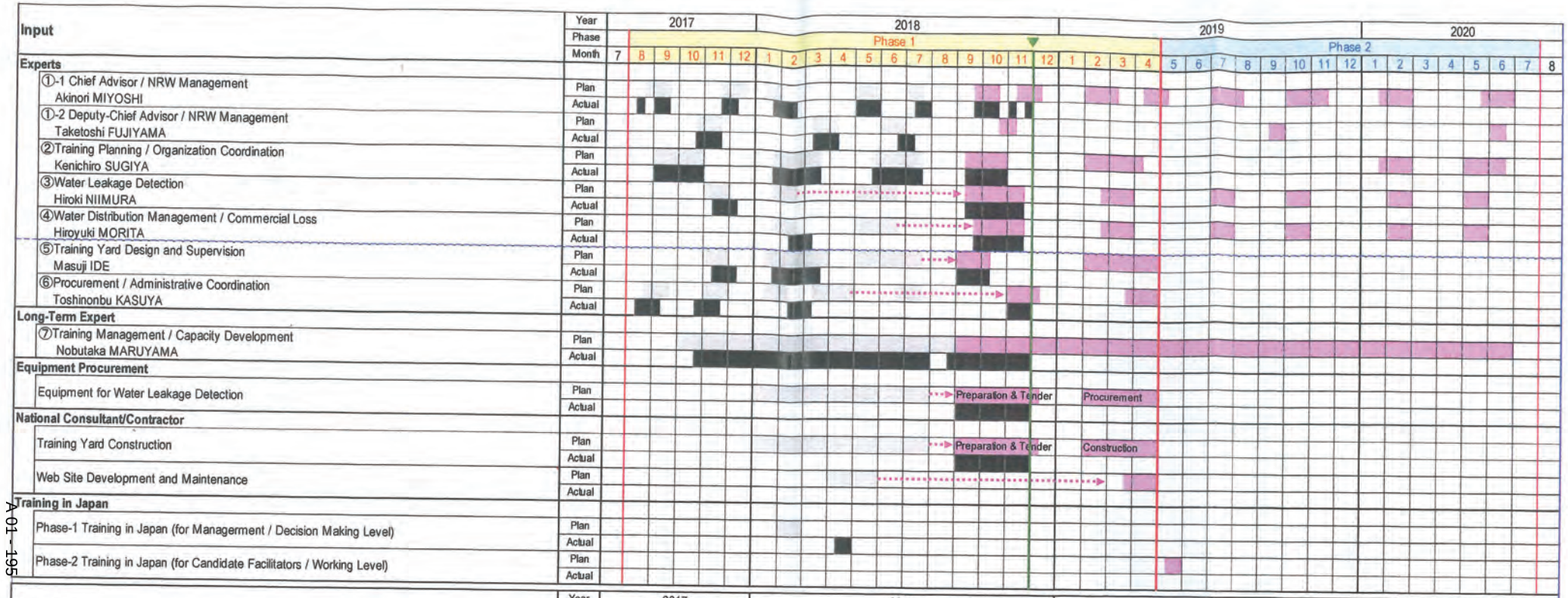
Version 2 to 3

Dated 29 Nov. 2018

Project Title: Project for Strengthening the Training Capacity of IBTC on Non-Revenue Water




Activities
Year
Phase
Month
2017
2018
2019
2020
Phase 1
Phase 2
7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8
Output 3: The NRW Training is conducted with training improvement cycle.
3-1 Design the NRW Training based on the results of Output-1.
Progress: 100%
3-2 Secure the site(s) for workplace of the NRW Training.
Progress: 30%
Behind: 3.0 month
3-3 Secure facilitators (experienced/skilled personnel on water reticulation or equivalent) for the NRW Training from DWS/IBTC and stakeholders.
Progress: 30%
Behind: 9.0 month
3-4 Develop training yard for the NRW Training at IBTC.
Preparation & Tender
Construction
Progress: 45%
Behind: 9.0 month
3-5 Procure equipment, instruments/tools and materials for the NRW Training.
Preparation & Tender
Procurement
Progress: 40%
Behind: 9.0 month
3-6 Develop teaching/learning materials for the NRW Training with incorporating good practices from baseline survey into the materials if any.
Progress: 15%
Behind: 5.0 month
3-7 Prepare and conduct Facilitator Technical Meetings by both facilitators and JICA Experts for the NRW Training.
Progress: 00%
Behind: 1.0 month
3-8 Prepare for conducting the NRW Training (schedule, budget plan, applying for releasing fund, recruiting participants and etc.).
Progress: 00%
Behind: 0.0 month
3-9 Conduct the NRW Training by facilitators with support from JICA Experts.
Progress: 00%
Behind: 0.0 month
3-10 Monitor the NRW Training and feed the results back under training improvement cycle.
Progress: 00%
Behind: 0.0 month
3-11 Verify effects of the NRW Training in sampled municipalities.
Progress: 00%
Behind: 0.0 month
Plan
Actual
100%
50%


Input
Year
Phase
Month
2017
2018
2019
2020
Phase 1
Phase 2
7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8
Experts
①-1 Chief Advisor / NRW Management
Akinori MIYOSHI
①-2 Deputy-Chief Advisor / NRW Management
Taketoshi FUJIYAMA
②Training Planning / Organization Coordination
Kenichiro SUGIYA
③Water Leakage Detection
Hiroki NIIMURA
④Water Distribution Management / Commercial Loss
Hiroyuki MORITA
⑤Training Yard Design and Supervision
Masuji IDE
⑥Procurement / Administrative Coordination
Toshinonbu KASUYA
Long-Term Expert
⑦Training Management / Capacity Development
Nobutaka MARUYAMA
Equipment Procurement
Equipment for Water Leakage Detection
Preparation & Tender
Procurement
National Consultant/Contractor
Training Yard Construction
Preparation & Tender
Construction
Web Site Development and Maintenance
Training in Japan
Phase-1 Training in Japan (for Managerment / Decision Making Level)
Phase-2 Training in Japan (for Candidate Facilitators / Working Level)
Plan
Actual

Monitoring
Year
Phase
Month
2017
2018
2019
2020
Phase 1
Phase 2
7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8
Monitoring
Joint Coordination Committee
Kick-off
1st JCC
2nd JCC
3rd JCC
Set-up the Detailed Plan of Operation
Submission of Monitoring Sheet
Ver.0
Ver.1
Ver.2
Monitoring Mission from Japan
Joint Monitoring
Post Monitoring
Reports/Documents
Project Progress Report
Project Completion Report
Project Brief Note
Public Relations
Web Site
Press Release, Press Conference, Public Relations Magazine, Newsletter
Plan
Actual

MINUTES OF MEETING ON FOLLOW-UP OF THE 3RD MEETING OF JOINT COORDINATING COMMITTEE

11th December 2018

MINUTES OF MEETING
ON
FOLLOW-UP OF
THE THIRD MEETING OF JOINT COORDINATING COMMITTEE
FOR
PROJECT FOR STRENGTHENING THE TRAINING CAPACITY OF IBTC
ON NON-REVENUE WATER

HELD AT
IBTC, DEPARTMENT OF WATER & SANITATION

Pretoria, 11th December 2018

Mr. Akinori MIYOSHI Chief Advisor, Japan International Cooperation Agency (JICA) Expert Team	Mr. Aloious Chaminuka Chief Director: Engineering Services Department of Water and Sanitation (DWS) Republic of South Africa

Attached Document

Project Management Committee meeting to follow up the third meeting of Joint Coordinating Committee (hereinafter referred to as "JCC") of the Project for Strengthening the Training Capacity of IBTC on Non-Revenue Water (hereinafter referred to as "the Project") was held on 11th December 2018.

1. Main Points discussed

As the result of discussions, Project Management Committee confirmed the following matters:

1-1. Revision of the Project Implementing Structure (Phase 1)

The Project Management Committee prepared project management document which describe all tasks/sub-tasks, decision making process and regular meetings. The Committee will draw up rules and tools for scheduling, progress management and information sharing by the end of January 2019 and will finalize it in the next Project Management Committee meeting.

3-2. Delay in Training Development (Selection of Facilitators and the Target Participating Municipalities)

The Project Management Committee confirmed the progress and further follow-up as below:

	Items	Timeline
a	To complete selection criteria and listing candidate facilitators and the target participating municipalities, then obtain concurrence of Project Management Committee.	By 7th of Dec. 2018
	Follow-up The task team (Water Use Efficiency) presented the criteria and lists of candidate facilitators and municipalities. The Project Management Committee accepted them but suggested to consider functionality/ dysfunctionality of municipality based on the Back-to-Basics indicator. The task team (Water Use Efficiency) shall finalize the criteria and list, communicate with candidate for their engagement.	By the end of January 2019.

	Items	Timeline
B	To prepare terms of reference or equivalent of facilitator.	By 7th of Dec. 2018
	Follow-up The task manager (Water Use Efficiency) shall finalize the terms of reference or equivalent based on criteria and result of the above communication, and shall submit the final list of candidate facilitators and the target participating municipalities to task manager for official liaison.	By the end of January 2019.
c	To complete securing facilitators and the target participating municipalities including memorandum of understanding/agreement or equivalent.	By the end of Feb. 2019
d	To hold facilitator technical meetings and/or take alternative means such as individualized dialogues with each facilitator even in consideration of DWS's financial constraint.	1st Mar. to 30th Apr. 2019
	Follow-up DWS will cope with holding a facilitator technical meeting, utilize individualized dialogues with each facilitator and make a budget request for facilitator technical meetings for the next fiscal year starting April 2019.	
e	To make strategic use of training in Japan for facilitators currently-scheduled in the second half of May 2019. Unless facilitators are secured with their specific names by the end of Feb. 2019, training in Japan cannot be implemented as planned, which causes further delay.	The second half of May 2019
f	To draft learning materials under the initiatives of JICA Experts prior to the above facilitator technical meeting and/or alternative means.	By the end of Feb. 2019

3-3. Relation with Qualification "Water Reticulation Practitioner"

The task team (Operational Support) and the JICA Experts attended the meeting for "External Integrated Assessment Blueprint/Addendum" of the qualification "Water Reticulation Practitioner" at Local Government Sector Education Training Authority (LGSETA) on the 6th-7th December, as the first official introduction to the group for developing qualification and training: Community of Expert Practitioners (CEP).

The task team (Operational Support) will continue to coordinate and take a role of interface for further information sharing and possible collaboration.

3-5. DWS's Budget and Funding to the Project

The task team (Operational Support) and the JICA Expert met Chief the Operating Officer (COO) of LGESTA at his office on the 3rd December to brief the Project and submit the first draft proposal for the funding. He gave a favorable review for the funding and suggested unification of communication.

The relevant Project members will discuss budget of the NRW National Training on 13th December, then it will be presented to the management of DWS to request a budget for the next fiscal year by the end of December 2018 as well as to finalize the draft proposal to LGSETA by the end of January 2019.

END

Appendix

Appendix 1: Agenda
Appendix 2: Attendance Register
Appendix 3: Handouts

water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Infrastructure Branch Training Centre

PROJECT MANAGEMENT COMMITTEE MEETING: JICA / SALGA/ IBTC /INTERNATIONAL RELATIONS &DWS

11 December 2018

Attendance Register

No	Initials & Surname	Designation	Unit	Email	Telephone	Signature
1	[redacted]					
2						
3						
4						
5						
6						
7						
8						

PROJECT MANAGEMENT COMMITTEE MEETING: JICA / SALGA/ IBTC /INTERNATIONAL RELATIONS &DWS

11 December 2018

9	[redacted]					
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						

11/Dec/2018

Selection Criteria of Facilitators

- Experience: More than 10 years experiences of water supply reticulation design and O&M in a municipality (current active and retired) => Shouldn't we mention the required Design and O&M percentage? I think at least 3years O&M is required (I have included this below in the knowledge required).
- Qualification: Engineer, technologist, technician and/or artisan, supervisor, site leader
- Content/knowledge
  - Knowledge of IWA water balance
  - A wide range of knowledge on water reticulation and WCWDM
  - Operational and Maintenance in Municipality space
  - Bulk metering and techniquenies
- Core and Specialised skills
  - Good interpersonal skill and communication including the ability to explain things clearly and simply to others. Facilitators in this course are not expected to give lectures, but to guide participants through practical exercise and written materials
  - Ability to teach, facilitate and demonstrate practical skills and application of principles
  - Provision of mentorship
  - Writing skill of reports

~~Initial~~ Candidate Start-up Facilitators (totally 15)

- 4: DWS (Armand, Riaan, WUE and DWS-Regional office)
- 1: Water Board
- 7: Municipality (doing-well municipalities(3) and other municipalities(4) which may include not-doing-well municipalities if committed,
- 2: CoGTA/MISA (retired)
- 1: UCT

+

Advisor: WRC(Dr Jay Bhagwan) and Tshwane (Mr Trevor Westman)

Selection Criteria of the Target Participating Municipalities

A maximum of three municipalities will be accommodated in The NRW National Training. The selected municipalities should be willing to allow the facilitators to visit the trainees in their workplace for the period that will be specified but it will not be more three day

- High NRW ratio
- Capacity to provide safe and stable water supply by conventional piped scheme(s)

- Mapping of reticulation system (with accuracy by a yearly revision)
- Reliable digital billing data (with accuracy)
- Having a WSDP
- Municipality's vision/policy/plan and ongoing efforts in tackling NRW (if any)
- Affordability to allocate 4 to 6 staff during the whole training period (trainees shall NOT be changed during the period)

Trainees

The participation in current The NRW National Training is limited to three Municipalities with maximum of 18 trainees. That is a maximum of 6 trainees from each municipality will be allowed. Ideally Trainees from the each participating Municipality should consist of supervisors, operational staff and Engineers who will work as team during the training session. Each team should have at least 4 to 6 trainees (1 Leader + 3 operational staff mandatorily and 1 or 2 Technical Director/Senior Engineer optionally) from relevant sections such as: => Do we need to mention mix of male/female, black/others, young/old, ? I think at least 3 from 4 should be age under 45 this will be considered at the later stage.

- Water conservation and water demand management (WCWDM)
- Operation and maintenance (O&M), and
- Equivalent

Also, the NRW National Training targets the following staff of Municipalities, who have accumulated a certain amount of education, knowledge, experience and expertise:

For example,

- Technician (or Technician-to-be)
- Superintendent/Supervisor/Foreperson/Site-Manager (or Superintendent/Supervisor/Foreperson/Site-Manager-to-be)
- Artisan plumber (or Artisan plumber-to-be)
- General worker, and
- Equivalent

=> how about NQF level for trainees as reference

Facilitators for the National NRW Training			
Name	Institutions	Module	
Prof Kobus Van Zyl	UCT	Water Measurement, audit and balance	Private
Willem Wegellin	WRP Consultants	Develop WC/WDM Plan Strategy	Private
Toriso Tlou	Tlou Consulting	Municipal Pipeline network and reticulation system planning, laying, operation and maintenace	Private
Thuli Mwelase	Ugu Municipality	Technical intervention	Goverment
Johan Jonker	George Municipality	Technical intervention	Goverment
Basson Armand	DWS	Technical intervention	Goverment
Riaan Stassen	DWS	Technical intervention	Goverment
Michael Singh	DWS	Technical intervention	Goverment
Trevor Westman	CoT	Technical intervention	Goverment
Ash	Co eThekwini	Technical intervention	Goverment
Zolile Basholo	CoCT	Technical intervention	Goverment
Eitiene Hugo	CoJ	Technical intervention	Goverment
Goege Kupa	Selilu Manzi	Technical intervention	Goverment
Koena Moabelo	Mbombela Municipality	Technical intervention	Goverment
COO provide person	Rand Water	Technical intervention	Goverment
COO provide person	Umngeni Water	Technical intervention	Goverment
Freddy to assist database	MISA	Technical intervention and workplace mentoring	Goverment
Freddy to assist database	MISA	Technical intervention and workplace mentoring	Goverment
Freddy to assist database	MISA	Technical intervention and workplace mentoring	Goverment
Freddy to assist database	MISA	Technical intervention and workplace mentoring	Goverment
Freddy to assist database	MISA	Technical intervention and workplace mentoring	Goverment
Freddy to assist database	MISA	Technical intervention and workplace mentoring	Goverment

Municipalities to be prioritised for the National NRW Training					
Municipalities		Cate-gory	System Input Volume (m^3/a)	NRW (m^3/a)	NRW %
JHB	City of Johannesburg	A	578,391,853	221,839,414	38.4%
ETH	eThekwini	A	325,289,460	132,146,790	40.6%
EKU	Ekurhuleni	A	363,964,110	125,859,904	34.6%
TSH	City of Tshwane	A	351,883,407	91,687,735	26.1%
CPT	City of Cape Town	A	329,003,716	73,031,874	22.2%
DC42	Sedibeng DM	C1	118,791,917	65,035,524	54.7%
DC33	Mopani DM	C2	109,841,103	63,576,256	57.9%
GT421	Emfuleni	B1	98,140,532	58,988,859	60.1%
NMA	Nelson Mandela Bay	A	115,476,923	53,337,617	46.2%
DC31	Nkangala DM	C1	113,783,173	50,051,289	44.0%
DC32	Ehlanzeni DM	C1	88,733,851	49,866,460	56.2%
DC37	Bojanala Platinum DM	C1	96,115,472	43,829,627	45.6%
DC23	Uthukela DM	C2	51,715,800	34,550,752	66.8%
DC35	Capricorn DM	C2	64,442,198	34,265,938	53.2%
KZN225	The Msunduzi	B1	71,398,543	33,833,690	47.4%
BUF	Buffalo City	A	66,792,119	31,061,907	46.5%
MP326	Mbombela	B1	52,684,434	30,635,933	58.1%
DC40	Dr Kenneth Kaunda DM	C1	51,902,307	30,237,181	58.3%
DC30	Gert Sibande DM	C1	68,473,689	29,934,742	43.7%
MAN	Mangaung	A	72,306,705	29,606,739	40.9%
DC19	Thabo Mofutsanyane DM	C1	44,582,411	27,420,067	61.5%
MP312	Emalahleni	B1	48,017,663	27,339,435	56.9%
LIM333	Greater Tzaneen	B4	43,271,809	25,877,087	59.8%
DC34	Vhembe DM	C2	46,896,628	25,829,474	55.1%
NW373	Rustenburg	B1	52,471,859	24,616,822	46.9%
DC48	West Rand DM	C1	60,069,413	24,416,963	40.6%
DC18	Lejweleputswa DM	C1	46,967,637	23,759,433	50.6%
DC38	Ngaka Modiri Molema DM	C2	42,635,677	23,473,621	55.1%
DC21	Ugu District DM	C2	41,821,103	23,309,333	55.7%
DC26	Zululand DM	C2	34,332,616	22,623,825	65.9%
LIM354	Polokwane	B1	42,527,444	22,131,242	52.0%
DC9	Frances Baard DM	C1	40,625,222	21,685,909	53.4%

CONTENTS

INSTRUCTION IN USE 1

1. RE-ESTABLISHMENT OF PROJECT IMPLEMNTING STRUCTURE 7
- OBJECTIVE AND STRUCTURE 7
- TASK LISTING AND SCHEDULING 7
- PREPRATION OF TOOL AND RULES 7

2. STRENGTHNING PUBLICITY OF THE PROJECT 7
- OBJECTIVE 7
- PREPARATION OF EVENET & SEMINAR CALLENDAR 7
- PREPARATORY SCHEDULE 8

3. TRAINING PRGRAMME SCHEDULE (WITH FLEXIBILITY) 8
- PREPRATION OF TRANING PROGRAMME CALLENDAR 8
- PRE-TRAINING: TOURING (2019.3 -) 8
- FACILITATOR TECHNICAL MEETING 8
- THE FIRST TRAINING (2019.7) 8
- THE SECOND TRAINING (2019.10) 9
- THE THIRD TRAINING (2020.2) 9
- OTHER (PROJECT TERMINAL EVALUATION) 9
- THE FOURTH TRAINING (2020.5) 9
- OTHER (PROJECT SEMINAR) 10
- THE FIFTH TRAINING (POST-PROJECT, 2020.10) 10
- THE SIXTH TRAINING (POST-PROJECT, 2021.2) 10

4. TRAINING YARD AND O&M 11
- OBJECTIVE AND CONTENTS 11
- DESIGNING 11
- PROCUREMENT 11
- PREPARATION FOR O & M 12

5. EQUIPMENT AND O & M 12
- OBJECTIVE AND CONTENTS 12
- SELECTION 12
- PROCUREMENT 12

- PREPARATION FOR O & M 13

6. PLATFORM OF PUBLIC REPRATION (WEB, SALGA) 13
- OBJECTIVE 13
- DEVELOPMENT 13
- SYSTEMIZATION AND MAITENANCE 13

7. LEARNING MATERIAL DEVELOPMENT AND O & M 13
- PREPRATION 13
- MATERIAL DEVELOPMENT (BASED ON JICA EXPERT'S DRAFT) 14
- PRINTING AND BINDING 14
- ESTABLISHMENT OF IMPROVING/UPDATING SYSTEM AND PROCEDURES 14

8. TEACHING METHOD DEVELOPMENT (FACILITATOR MANUAL) AND O & M 15
- PREPARATION 15
- MANUAL DEVELOPEMNT (BASED ON JICA EXPERT'S DRAFT) 15
- PRINTING AND BINDING 15
- OTHER TEACHING TOOLS 15
- ESTABLISHMENT OF IMPROVING/UPDATING SYSTEM AND PROCEDURES 16

9. UNIFORM, CAP, BADGE AND CERTIFICATE 16
- OBJECTIVE 16
- DEVELOPMENT AND PROCUREMENT 16
- ESTABLISHMENT OF IMPROVING/UPDATING SYSTEM AND PROCEDURES 16

10. FACILITATOR SELECTION AND SECUREMENT 16
- SELECTION CRITERIA AND PRODECURES 16
- CANDIDATE FACILITATORS LISTING AND SCREENING 16
- LIAISON AND CORDINICATION WITH STAKEHOLDERS 17
- ESTABLISHMENT OF CONTINUOUS FACILITATOR SECUREMENT SYSTEM AND PROCEDURES 17

11. PARTICIPATING MUNICIPALITY SELECTION/SUBSCRIPTION 17
- SELECTION CRITERIA AND PRODECURES 17
- LIAISON AND CORDINICATION WITH MUNICIPALITIES AND SALGA/COGTA 17
- CANDIDATE/APPLICANT MUNICIPALITY LISTING AND SCREENING 18

12. TRAINING PROGRAMME SCHEDULING PROCEDURES COMPATIBLE WITH PARTIPATING MUNICIPALITIES 18

■ Objective 18
■ Programme Scheduling Procedures (with Flexibility and Maximizing Effectiveness) 18
13. PRE-TRAINING: TOURING 19
■ Objective 19
■ Preparation 19
■ Touring 19
■ Results and Feedback 19
14. OPERATION OF FACILITATOR TECHNICAL MEETING 19
■ Preration and Cordination of Faclitator Technical Meeting 19
15. TRAINING IN JAPAN (FOR START-UP FACILITATORS) 20
■ Objective 20
■ Prepration and Logistics 20
■ Results and Feedback 20
16. COLLABORATION WITH QUALIFICATION: WATER RETICULATION PRACTITIONER 20
■ Information Sharing and Relationship-Building 20
17. COLLABORATION WITH CITY OF EKHURLENI-DBSA 21
■ Information Sharing and Relationship-Building 21
18. ASSESSMENT TOOL DEVELOPMENT AND O&M 21
■ Objective 21
■ Tool Development 21
■ Establishment of Assessment/Feedback Improving/Updating System and Procedures 21
19. MEASUREMENT METHOD OF IMPACT TO TRAINEES 22
■ Objective 22
■ Method Development 22
■ Measurement 22
■ Establishment ofMeasurement Improving/Updating System and Procedures 22
20. MEASUREMENT METHOD OF IMPACT TO PARTICIPATING MUNICIPALITIES 22
■ Objective 22

■ Method Development 23
■ Measurement 23
■ Establishment ofMeasurement Improving/Updating System and Procedures 23
21. TRAINING PROGRAMME IMPROVEMENT SYSTEM AND O&M 23
■ Objective 23
■ System Developemnt 23
■ Preparation of Evaluation 24
■ Evaluation 24
■ Establishment of System and Procedures 24
22. BASELINE SURVEY SEMINAR FOR STAKEHOLDERS 24
■ Objective 24
■ Planning 24
■ Prepration and Logistics 24
■ Results and Feedback 25
23. PROJECT COMPLETION REPORT 25
■ Objective 25
■ Prepration 25
■ Drafting (based on Task's Activities Records) 25
■ Printing and Binding 26
■ Process and Feedback 26
24. PROJECT COMPLETION SEMINAR 26
■ Objective 26
■ Planning 26
■ Prepration and Logistics 27
■ Results and Feedback 27
25. STANDARD OPERATING PROCEDURES: MANUALS (O&M) 27
■ Equipment: Technical Members 27
■ Yard: Technical Members 28
■ Class: Administrative Members 28
■ Other: Technical Members 28
26. STANDARD OPERATING PROCEDURES AND MANUALS (ADMINISTRAIVE) 28
■ Preparation (Training Period): Administrative Members 28

■ FACILITATORS: ADMINISTRATIVE MEMBERS 28
■ TRAINEES: ADMINISTRATIVE MEMBERS 29
■ ASSESSMENT AND MONITORING: ADMINISTRATIVE MEMBERS 29
■ CERTIFICATE: ADMINISTRATIVE MEMBERS 29
■ OTHER: ADMINISTRATIVE MEMBERS 29
■ DOCUMENTS AND MANUALS: ADMINISTRATIVE MEMBERS 29

11/Dec/2018

Estimated Cost (Provisional):

1. **For developing curriculum, training procedure from November 2018 to June 2019 ("Facilitator Meeting" 5Day*3times)**

a. Travel fee (in Gauteng): 5 people* 500R*3times= 7 500
b. Travel fee (from other Prov.): 5 people* 4000R*3times= 60 000
c. Allowance (without DWS): 8 people* 1500R*3times= 36 000
d. Allowance (retired): 2 people*10000R*3times= 60 000
e. Accommodation (without DWS): 8 people* 4000R*3times= 96 000

Total: 259 500R----(1)

2. **For Material development:**

Total: 50 000R-----(2)

3. **For actual training session from July 2019 (1Week in IBTC, 2Weeks in Municipalities)*2times**

(Facilitator (in IBTC);) 2 weeks+1 preparation meeting

a. Travel fee (in Gauteng): 5 people* 500R*3times= 7 500
b. Travel fee (from other Prov.): 5 people* 4000R*3times= 60 000
c. Allowance (without DWS): 8 people* 1500R*3times= 36 000
d. Allowance (retired): 2 people*10000R*3times= 60 000
e. Accommodation (without DWS): 8 people* 4000R*3times= 96 000

Sub: 259 500R

(Trainee (in IBTC):) 2Weeks

a. Travel fee (in Gauteng): 6 people* 500R*2times= 6 000
b. Travel fee (from other Prov.): 6 people* 4000R*2times= 48 000
c. Accommodation: 12 people* 1400R*2times= 33 600

Sub: 87 600R

(Facilitator (workplace):) 4 weeks+1 preparation meeting

*1 retired mentor, 1 DWS trainee, 2 Munic or inst. trainee,1 assesor,1 moderator

a. Travel fee: 6 people* 4000R*5times= 120 000
b. Allowance (without DWS): 1 people*(1500R*4+ 600(prep.))= 6 600
c. Allowance (retired): 1 people*(10000R*4+4000(prep.))= 44 000
d. Accommodation: 6 people*(4000R*4+2000(prep.))= 108 000

Sub: 297 500R

(Trainee (workplace):) 4 Weeks

a. Travel fee: 12 people* 0R*4times= 0

b. Travel fee(to other Prov.): 12 people* 0R*4times= 0

c. Accommodation: 12 people* 0R*4times= 0

Sub: 0 R

Total: 644 600 R/session

Total 644 600 R * 4 sessions (for first two years): 2 578 400 R ----(3)

4. **Others (in IBTC):**

a. Yard maintenance (pavement, plumbing, pumps, ditch, etc.): 50 000/an

b. Equipment maintenance (meters, leakage detectors, etc.): 15 000/an

c. Consumable (pipe, fittings, tools, lightbulbs, etc.): 30 000/an

d. Water: 4 000R / session*4= 16 000/an

e. Training material (e.g. textbook, note) 20 000/an

Total: 131 000 R/an

Total 131 000R * 2 years = 262 000 R -----(4)

5. **Others (in Municipality / Workplace):**

a. Construction (Valves, meters, pipes, etc.): 500 000R

Total: 500 000 R/Munic

Total 500 000 R * 8 Municipalities = 4 000 000 R-----(5)

6. **Ground Total**

(1)+(2)+(3)+(4)+(5) : 7 149 900 R / 2 years (4session)

(Without construction: 3 149 900 R/ 2 years)

MINUTES OF MEETING ON

THE 4TH MEETING OF JOINT COORDINATING COMMITTEE

12th March 2019

including Project Monitoring Sheet Ver.3
(August 2018 to February 2019)

MINUTES OF MEETING
ON
THE FOURTH MEETING OF JOINT COORDINATING COMMITTEE
FOR
PROJECT FOR STRENGTHENING THE TRAINING CAPACITY OF IBTC
ON NON-REVENUE WATER

HELD AT
IBTC, DEPARTMENT OF WATER & SANITATION

Pretoria, 12th March 2019

Mr. Akinori MIYOSHI
Chief Advisor,
Japan International Cooperation Agency (JICA) Expert Team

Mr. Aloious Chaminuka
Chief Director: Engineering Services
Department of Water and Sanitation (DWS)
Republic of South Africa

Mr. Kensuke Oshima
Senior Representative,
JICA South Africa Office

Mr. William Moraka
Director,
Water Sustainability & Innovation
South Africa Local Government Association (SALGA),
Republic of South Africa

Attached Document

For monitoring, discussion on issues, challenges, solutions and way forward of the Project for Strengthening the Training Capacity of IBTC on Non-Revenue Water (hereinafter referred to as "the Project"), the fourth meeting of Joint Coordinating Committee (hereinafter referred to as "JCC") was held on 12th March 2019.

1. Remarks

The Chairperson Mr. Aloious Chaminuka, Chief Director, Engineering Services, DWS, opened the meeting.

As an opening remark, Mr. William Moraka, Director, Water Sustainability & Innovation, South Africa Local Government Association (SALGA) apologized for his absence for the past period and gave his thanks to DWS and JICA for the implementation. He highlighted:

- Non-Revenue Water (NRW) has been a key issue in water and sanitation sector of South Africa.
- Relevant partners will meet in October or November 2019 to look at how to take water management forward, which should align with "Operation PHAKISA" an initiative of the South African government to fast track the implementation of solutions on critical development issues.
- Collaboration and synergy with other partners are needed such as JICA's support to Development Bank of Southern Africa (DBSA) and City of Ekurhuleni, and vice versa.
- SALGA has been engaging the Minister to the way of helping municipalities in municipal water management.

Mr. Kensuke Oshima, Senior Representative of JICA South Africa Office, expressed his heartfelt gratitude to the Project Team members and emphasized.

- Today's meeting should fast-track the implementation.
- Regarding the issues and matters discussed, highlighted and agreed in the 3rd JCC meeting, JICA wishes that we come up with effective solutions and meaningful inputs to make objectives realized.
- The Project has a critical mechanism to help mitigating and improving challenges of water sector of South Africa.

- JICA is proud to be involved in DWS and its mandate to improve resources and skills development for better working water sector of South Africa.

As closing remarks, Mr. Aloious Chaminuka, Chief Director, Engineering Services, DWS, emphasized the current challenges about timeline and the necessity of keeping on efforts to make sure of achievement and success at the end of the Project. Lastly, he expressed his gratitude to the participants and cordial relationship among them.

2. Presentations

Mr. Akinori Miyoshi, Chief Advisor of JICA Expert Team and Mr. Albert Mmbidi, Director, International Water Support, DWS made a presentation jointly (refer to Appendix 3) on the project outline, progress, current issues, challenges, solutions and necessity of revision of Plan of Operations, then requested the JCC members to recognize them.

Mr. Hiroki Ishimaru, Programme Officer, JICA Monitoring Survey Mission presented the trip to KwaZulu-Natal Province and emphasized (refer to Appendix 4):

- Recognition of the importance of the NRW Training (municipal plumbing).
- The necessity of full-time resources to the Project
- The necessity of active participation of DWS regional offices, SALGA and Department of Cooperative Governance and Traditional Affairs (CoGTA) that are closer to municipalities.
- JICA Experts are not consultants to provide training resources, and DWS needs to move their hands by themselves and to work together daily with JICA Experts.
- As a suggestion, travelling cost on mobilization of facilitators and the target participating municipalities will be supported by the Japanese side this time only to avoid further delay.

Mr. Yoshiki Omura, Senior Advisor, JICA Monitoring Survey Mission gave his thanks to DWS for arrangement of trip to KwaZulu-Natal Province and highlighted (refer to Appendix 4):

- His impression by municipal water services authorities which are trying to tackle with NRW or leakage by their own initiatives.
- The necessity of IBTC as the hub of networking cooperation among municipalities.

- DWS's responsibilities in NRW reduction: establishing sector policy, regulation and funding.

3. Main Points discussed

3-1. Delay of the Project

Based on the presentation, the JCC members confirmed that some critical tasks (activities) have delayed or may delay as below:

Table 1: Status of Critical Tasks (Activities)

	Items	Timeline	Status/Cause
A	The task team (Water Use Efficiency) shall finalize the criteria and list, pre-communicate with candidate for their engagement.	By the end of January 2019.	Done
B	The task manager (Water Use Efficiency) shall finalize the terms of reference or equivalent based on criteria and result of the above communication, and shall submit the final list of candidate facilitators and the target participating municipalities to task manager for official liaison.	By the end of January 2019.	Done
C	To complete securing facilitators and the target participating municipalities (workplace and trainees) including memorandum of understanding/ agreement or equivalent.	By the end of February 2019	Process of obtaining official concurrence has started.
D	To hold facilitator technical meetings and/or take alternative means such as individualized dialogues with each facilitator even in consideration of DWS's financial constraint. DWS will cope with holding a facilitator technical meeting, utilize individualized dialogues with each facilitator and make a budget request for facilitator technical meetings for the next fiscal year starting April 2019.	1st March to 30th April 2019	It seems to delay due to delay of item "C".
E	To make strategic use of training in Japan for facilitators currently-scheduled in the second half of May 2019. Unless facilitators are secured with their specific names by the end of Feb. 2019,	The second half of May 2019	It won't be possible due to delay of item "C" and effect by general election May 2019.

	Items	Timeline	Status/Cause
	training in Japan cannot be implemented as planned, which causes further delay.		
F	To draft learning/teaching materials under the initiatives of JICA Experts prior to the above facilitator technical meeting and/or alternative means.	By the end of February 2019	It has delayed due to postponing and rescheduling JICA Experts' trips to South Africa.

The JCC members understood the necessity of revision of Plan of Operations (hereinafter referred to as "PO") from PO_3 to PO_4 comprehensively, and confirmed the Project members will fulfill the followings:

- Project Management Committee (PMC) ensures active engagement and adherence to work breakdown structure (WBS).
- JICA Experts ensure encouragement for schedule/progress management by updating WBS.
- In the initial set-up of the NRW Training, JICA supports DWS for logistics (transport and accommodation) financially in securing (mobilization) of facilitators and the target participating municipalities, as well as in conducting facilitator technical meetings.

3-2. Rescheduling of the 2nd Training in Japan

DWS highlighted the general election 2019 may affect the Project implementation including activities and inputs in May and June 2019, particularly the 2nd Training in Japan (facilitators) scheduled currently in the second half of May 2019 because of possible temporary slowdown of DWS's internal procedures by new administration. To deal with this, DWS suggested to postpone the 2nd Training in Japan to July 2019 or later.

The JCC members accepted this reschedule as a part of PO revision and confirmed the Project members will fulfill the followings:

- PMC (Tasks: Water Use Efficiency and International Water Support) secures facilitators to be nominated as participants officially with their specific names <u>not later than the end of April 2019</u> for application process.
- JICA Experts reviews/rearranges training curriculum in accordance with the NRW Training development and facilitators' expertise.

3-3. DWS's Budget and Funding Support to the Project

DWS's financial constraints in FY2018/19 have more or less affected the Project implementation including logistics of the Project members, which has hindered smooth securing (mobilization) of facilitators and the target participating municipalities. For the FY 2019/20, expenditure of the NRW Training was estimated and incorporated into the DWS's expenditure (budget plan).

On the other hand, the draft proposal for funding support was presented to Chief Operating Officer (COO) and Manager: Education Training Quality Assurance (ETQA) of Local Government Sector Education Training Authority (LGSETA) in December 2018 and February 2019. In response to comments from LGSEA, the proposal for funding support should be revised/finalized and resubmitted to LGSETA to be put on the agenda of board meeting on 20th March 2019, followed by Service Level Agreement to be in April 2019 if the proposal is accepted.

The JCC members confirmed the Project members will fulfill the followings:

- PMC Chairperson follows up the budget approval and allocation for the Project in FY2019/20 and share it timely with Project members and JICA Experts.
- PMC (Tasks: Operational Support and Water Use Efficiency) revises/finalizes and resubmits the proposal to LGSETA surely <u>not later than 13th March 2019</u>, which should be authorized by the DWS management.
- JICA Experts support PMC and relevant task teams.

3-4. Less Collaboration with SALGA (a Pre-condition for the Project)

This challenge was discussed in the past JCC meetings. Although the Project Team has observed sometimes good performance of SALGA's regional/provincial offices, however DWS has been not able to involve SALGA head office adequately in the Project since last year 2018, because of personnel transfer of a key counterpart, non-function of successor(s), limited resources in the section in charge.

SALGA has reinstated Mr. William Moraka in the 4th JCC meeting today, however the JCC members confirmed the Project members will fulfill the followings:

- DWS reviews seriously relationship with SALGA head office for functionality and sustainability of institutional arrangement of the NRW

Training.

- If applicable, DWS strengthens relationship with SALGA's regional/provincial offices closer to municipalities to be targets of the NRW Training, before the end of March 2019.
- SALGA is in the process of recruiting new personnel which would make it easier for them to fully participate in the Project.
- DWS builds up relationship with CoGTA before the end of March 2019.
- JICA Experts support PMC and relevant task teams.

3-5. Project Management and Operation

The Project management has been improved since November 2018 by establishing new project operating structure "Project Management Committee (PMC)" consisting of a chairperson, secretariats, task teams (leaders and members) together with JICA Experts. However, the full-time official(s) has not been assigned yet due to shortage in human resources.

The JCC members confirmed the project members will fulfill the followings:

- PMC ensures active engagement, initiatives and regular communication/reporting (task meeting at least once in a week by task).
- DWS secures the full-time official(s) to the Project before the end of April 2019.
- JICA Experts ensure appropriate support and facilitation.

4. Comments, Questions and Answers

Comments, questions and answers among participants were made as below:

4-1. Cooperation with Regional/Provisional Resources

In response to JICA mission's observation and recommendation, DWS committed to engage regional offices of DWS and other stakeholders such as SALGA and CoGTA as well as to draw upon their knowledge and networks for communication and coordination. The engagement would be done during mobilization of facilitators and the target participating municipalities, which is scheduled by .the end of April 2019.

4-2. Tentative Financial Support from JICA

DWS gave recognition to the tentative financial support from JICA in relation

to mobilization of facilitators and the target participating municipalities, which enables face-to-face communication and coordination.

4-3. DWS's Budget for the Project

Regarding the DWS's budget for the Project in FY2019/20, DWS updated that DWS's Finance had confirmed five (5) million Rand to be allocated.

4-4. Collaboration with CoGTA

The Japanese side brought up that the Project has not tapped adequately into other stakeholders for collaboration, though CoGTA is willing to welcome the Project, and requested to make impacts of the Project be shared and benefitted for them multi-departmentally.

The South African side committed to engage CoGTA in the Project.

4-5. Full-time Official(s) to the Project

As an outstanding item that was agreed upon since the commencement of the Project, the Japanese side requested again full-time official(s) to be materialized immediately.

The South African side answered that full-time official(s) has been proposed to the DWS's top management to identify and second by internal DWS official(s), and will share the update with the Japanese side timely.

The Japanese side suggested to issue an assistance letter as a strategic support if the proposal is denied, and the South African side accepted the suggestion.

4-6. SALGA's Comments and Suggestions

As long as the Project is seen as seed funding project for SALGA, SALGA made comments and suggestions:

- To pledge SALGA's support as a critical role in terms of ensuring the Project success to the end.
- To consider mitigation of risks appropriately that the Japanese side has arisen
- To utilize existing platform: annual conference or pre-conference seminar of "Institute of Municipal Engineering"
- To regularize the approach of networking partners if it is realized.
- To apply our minds on how the selection process of facilitators will take

place.

- To look deeper into the number of training before the end of the Project
- To share the SALGA's initiative "national programme on NRW" to be presented to the National Treasury for funding: firstly municipal projects for NRW reduction (10 years period) and secondly development of "utility management course" with Energy and Water Sector Education Training Authority (EWSETA) which includes NRW component.

5. Approval of Project Monitoring Sheets (Version 3)

As a result of presentations and discussion in the JCC meeting, the JCC members approved Project Monitoring Sheets, Version 3 (refer to Appendix 5).

6. Approval of the Business Plan of the NRW Training (Version 1)

Through finalization of selection criteria of candidate facilitators and the target participating municipalities, the JCC members approved the Business Plan of the NRW Training, Version 1 (refer to Appendix 6).

7. Approval of Revision of PO

Based on the presentation of progress, issues, challenges, solutions and also the result of discussion, the JCC members approved revision of PO (refer to Table 2 and Appendix 7).

Table 2: Summary of PO Revision (Key Activities only)

Activities (and Inputs)		Current (PO_3)	Revised (PO_4)
1-4*	The 2nd Training in Japan	The second half of May 2019	Provisionally 29th July - 9th August 2019
1-5	Seminar(s) with stakeholders	March 2019	Provisionally June 2019 (after facilitator mobilization and when other forums are held by DWS, SALGA or CoGTA)
2-2*	Securing budget and fund	By the end of April 2019	No change
2-4	SOP development	By the end of July 2019	By the end of July 2019
2-7	Capacity assessment	March 2019	June 2019 (after facilitator mobilization)
3-2*	Selection of the target participating municipalities (workplaces and trainees)	By the end of February 2019	By the end of April 2019
3-3*	Selection of facilitators	By the end of February 2019	By the end of April 2019
3-4	Development of the NRW Training yard	By the end of April 2019	By the middle of June 2019
3-6	Teaching/learning materials development	By the end of April 2019	1st draft by the end of April 2019 Finalized with facilitators by the end of June 2019
3-7*	Facilitator Technical Meetings	By the end of April 2019	By the end of June 2019
3-8	Preparation of the NRW Training	By the end of April 2019	By the end of July 2019
3-9*	The NRW Training	From July 2019	From September 2019

Remarks: * Focal Activities

END

Appendix

Appendix 1: Programme/Agenda
Appendix 2: Attendance Register
Appendix 3: Presentation 1: Outline, Progress, Issues, Challenges, Solutions and Revision of Plan of Operations
Appendix 4: Presentation 2: Observation and Recommendations
Appendix 5: Project Monitoring Sheets (Version 3)
Appendix 6: The draft Business Plan of the NRW Training, Version 1
Appendix 7: Revision of Plan of Operations (PO_3 to PO_4)

Appendix 1

water & sanitation
Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Japan International Cooperation Agency

SALGA
inspiring service delivery

National Water Resource Infrastructure Branch (NWRI)
Infrastructure Branch Training Centre (IBTC)
assisted by
Japan International Cooperation Agency (JICA)

PROJECT FOR STRENGTHENING THE TRAINING CAPACITY OF IBTC ON NON-REVENUE WATER

PROGRAMME/AGENDA FOR 4TH JCC MEETING

Co-Chaired by Mr. Aloious Chaminuka and Mr. Tomohiro Seki
Venue: IBTC, DWS, Pretoria
Date: 10:00, Tuesday, 12th March 2019

10:00 - 10:05	Introduction of Participants
10:05 - 10:10	Remarks by SALGA: Mr. William Moraka (Director)
10:10 - 10:15	Remarks by JICA South Africa Office: Mr. Kensuke Oshima (Senior Representative)
10:15 - 10:40	Result of Joint Project Monitoring: - Mr. Albert Mmbidi (Director, International Water Support) - Task Leaders: Ms. Rosa (IBTC Centre Manager), Mr. Xolani (Diretctor: WUE) and Ms. Kentse (Director: Operational Support)
10:40 - 10:50	Revision of Plan of Operations (PO): Mr. Akinori Miyoshi (Chief Advisor, JICA Experts)
10:50 - 11:00	Observation and Recommendations by JICA Mission: Mr. Yoshiki Omura (Senior Advisor) and Mr. Hiroki Ishimaru (Program Officer)
11:00 - 11:15	Questions, answers and discussion
11:15 - 11:25	Approval of Project Monitoring Sheets, The NRW Training business plan, and Revision of PO
11:25 - 11:30	Way Forward and Closing Remarks by DWS: Mr. Aloious Chaminuka (Chief Director, Engineering Services, National Water Research Infrastructure Branch)

water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

SOUTH AFRICAN LOCAL GOVERNMENT ASSOCIATION
SALGA
Inspiring service delivery

4th JCC Meeting Attendance Sheet

Place: IBTC, Board Room

Date: 12th March, 2019

Time: 10:00 – 12:00

JICA

No	Initials & Surname	Organization	Email	Telephone	Signature
1.	[redacted]				
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23					
24.					
25.					

Appendix 2

Appendix 3

water & sanitation
Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

SALGA
Inspiring service delivery

JICA

Project for Strengthening the Training Capacity of IBTC on Non-Revenue Water

Outline, Progress, Issues, Challenges, Solutions and Revision of Plan of Operations

(August 2018 - February 2019)

A01 - 214

Presentation Outline

- Project Outline
- Progress of Activities
- Issues, Challenges and Solutions
- Revision of "Plan of Operation (PO)"

Project Outline

- **Project Period:**
  Phase-1: August 2017 to April 2019 (21 months)
  Phase-2: May 2019 to July 2020 (15 months)
- **Implementing Organization:**
  Department of Water and Sanitation (DWS) / Infrastructure Branch Training Centre (IBTC) at Roodeplaat Dam
- **Beneficiaries:**
  Participating Municipalities/staff, DWS/IBTC and their personnel and Facilitators
- **End Beneficiaries:**
  Customers / Consumers of water supplied by Municipalities

Outline of the Project (Project Design)

2017

Project

2020

Ex-post Project

2025

Outputs

1. Skill development, status-quo and challenges of NRW, and needs in municipalities are analyzed and shared with stakeholders.
2. IBTC's NRW Training capacity is improved.
3. The NRW Training is conducted with training improvement cycle.

Project Purpose

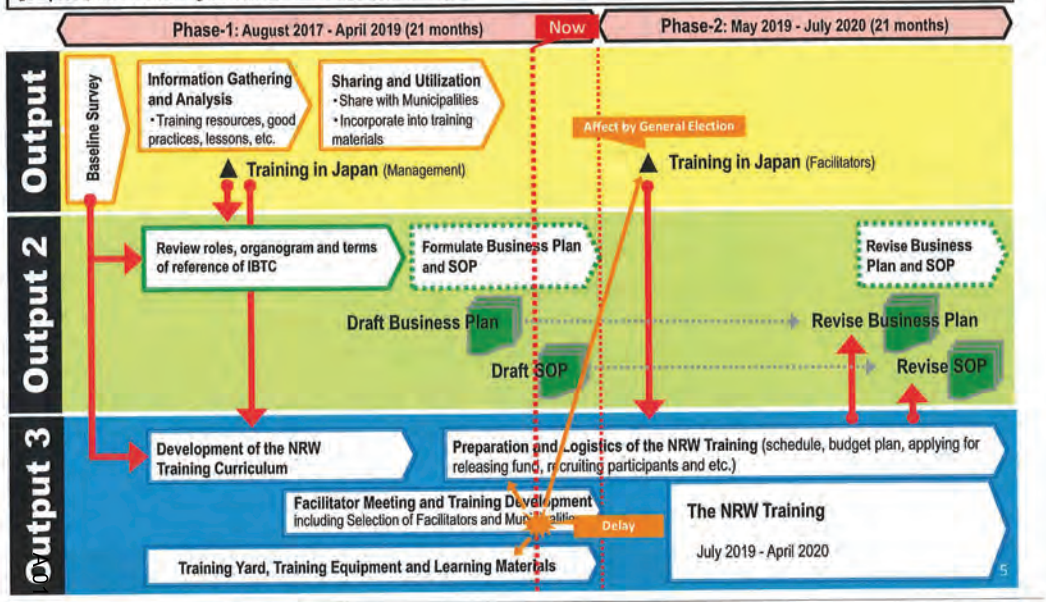
NRW management skills are developed for participating municipalities through the NRW Training by IBTC.

Overall Goal

Non-Revenue Water (NRW) management skills are utilized in NRW reduction projects of participating municipalities.

Project Outline (Timeframe)

【Overall Goal】 Non-Revenue Water (NRW) management skills are utilized in NRW reduction projects of participating municipalities.
【Project Purpose】 NRW management skills are developed for participating municipalities through the NRW Training by IBTC.
【Output 1 】 Skill development, status-quo and challenges of NRW, and needs in municipalities are analyzed and shared with stakeholders.
【Output 2 】 IBTC's NRW Training capacity is improved.
【Output 3 】 The NRW Training is conducted with training improvement cycle.



Progress of Activities

Output 1: Skill development, status-quo and challenges of NRW, and needs in municipalities are analyzed and shared with stakeholders.

- **Activity 1-1: Conduct baseline survey on skills development and NRW in municipalities.**
  - Completed.
- **Activity 1-2: Compile and analyze skills development and NRW in municipalities.**
  - Progress: 95%, Behind: 7.0 months
  - To be completed by final review for seminar (Activity 1-5).
- **Activity 1-3: Review needs of skills development on NRW, existing qualifications, roles and responsibility of DWS/IBTC.**
  - Progress: 95%, Behind: 7.0 months
  - To be completed by final review for seminar (Activity 1-5)

Progress of Activities

- **Activity 1-4: Benchmark water supply services and its skills development in Japan.**
  - Progress: 50%, Behind: 0.0 months
  - Target of the 2nd training in Japan: Mainly facilitators to be selected and corresponds to the NRW Training curriculum, should be implemented for strengthening municipal NRW management skills and IBTC's training capacity.
  - Contents of the 2nd training in Japan: To correspond to the NRW Training curriculum and be reviewed and finalized in accordance with selection of facilitators.
  - Schedule: 20th and 31st May 2019 for 2 weeks.
  - However, the 2nd training should be rescheduled (postponed) in consideration of progress of other activities and inputs, and also general election, associated changes and events in May and June 2019.

Progress of Activities

- **Activity 1-5: Hold a seminar and share on the results of the baseline survey and benchmark with stakeholders.**
  - Progress: 0%, Behind: 0.0 months
  - A seminar on the results of the baseline survey, benchmark and the NRW Training curriculum as an outcome should be held as soon as the selection of facilitators and its official concurrence are done, currently scheduled in March 2019.
  - The seminar has been suggested to be held jointly with water services-related events by DWS, SALGA, CoGTA and MISA.
  - However, the seminar cannot be held unless official concurrence of facilitators is confirmed.

Progress of Activities

Output 2: IBTC's NRW Training capacity is improved.

- **Activity 2-1: Prepare the NRW Training Business Plan.**
  - Progress: 95%, Behind: 10.0 months
  - To be approved in the JCC meeting after review and finalization of selection criteria of facilitator and target participating municipalities (trainees).
- **Activity 2-2: Prepare and take procedures for funding the NRW Training.**
  - Progress: 75%, Behind: 6.0 months
  - Expenditure of the NRW Training was estimated and incorporated into the DWS's expenditure (budget plan) 2019. Progress of budget approval and allocation should be followed up.

A 01 - 216

Progress of Activities

- The proposal for funding support was presented to LGSETA (COO & Manager: ETQA) in December 2018 and February 2019. In response to their comments, the proposal for funding support should be revised/finalized and resubmitted to LGSETA to be put on the agenda of board meeting on 20th March 2019, followed by Service Level Agreement in April 2019 if proposal is accepted.
- **Activity 2-3: Prepare Terms of Reference for the NRW Training.**
  - Progress: 95%, Behind: 10.0 months
  - To be completed by finalization of the NRW Training Business Plan (Activity 2-1).
  - DWS will second staff or combine posts if difficult to employ new staff.

Progress of Activities

- **Activity 2-4: Prepare Standard Operation Procedures (SOP) of the NRW Training.**
  - Progress: 10%, Behind: 10.0 months
  - Subjects to be covered by standard operating procedures (SOPs) and manuals were listed.
  - Process and formats/ templates used throughout planning, implementation, operation and maintenance should be prepared and recorded as SOPs and manuals by IBTC's quality assurer and task teams.
  - SOP Task Team has been preparing the standard format/template.
  - Existing process and formats/templates of DWS aiming at ISO9001 should be utilized if any.
- **Activity 2-5: Revise the SOP of the NRW Training through the activities of Output-3.**
  - In the Phase-2

Progress of Activities

- **Activity 2-6: Revise the NRW Training Business Plan through the activities of Output-3.**
  - In the Phase-2
- **Activity 2-7: Conduct capacity assessment of IBTC.**
  - Progress: 0%, Behind: 0.0 months
  - Capacity assessment of IBTC and/or municipalities should be conducted after the selection of facilitators, the target participating municipalities and its official concurrence.

Progress of Activities

Output 3: The NRW Training is conducted with training improvement cycle.

- **Activity 3-1: Design the NRW Training based on the results of Output-1.**
  - Completed.
- **Activity 3-2: Secure the site(s) for workplace of the NRW Training.**
  - Progress: 50%, Behind: 4.0 months
  - Selection criteria for municipalities (trainees) as workplace was finalized. Top-5 municipalities of each Province and the target participating municipalities (trainees) as workplace were proposed and updated.
  - The target participating municipalities (trainees) as workplace were supposed to concur officially by the end of February 2019.

A 01 - 217

Progress of Activities

- However, it has delayed due to delay of official inter-organizational communication between DWS and the municipalities.
- Obtaining official concurrence from each stakeholder should be postponed.
- To establish the NRW Training as a successful model for NRW reduction, the target participating municipalities should be strategically-selected during the Project period.

- **Activity 3-3: Secure facilitators (experienced/skilled personnel on water reticulation or equivalent) for the NRW Training from DWS/IBTC and stakeholders.**
  - Progress: 50%, Behind: 10.0 months
  - Selection criteria for facilitators was finalized. Candidate facilitators were proposed and updated.
  - The facilitators were supposed to concur officially by the end of February 2019.

Progress of Activities

- However, it has delayed due to delay of official inter-organizational communication between DWS and the organizations to which they belong.
- Obtaining official concurrence from each stakeholder should be postponed.
- Though participants-to-be in the 2nd Training in Japan (scheduled in May 2019) should be nominated from facilitators, application process has not started yet.

Progress of Activities

- **Activity 3-4: Develop training yard for the NRW Training at IBTC.**
  - Progress: 50%, Behind: 11.0 months
  - Bid tender was held successfully on 28th February 2019.
  - Construction should commence as soon as entering into a contract through evaluation meetings, and is supposed to be completed by the end of April 2019.
  - However, it has delayed due to re-arrangement of tender process (securement of several bidders).
  - Construction should be re-scheduled with the successful bidder, of which completion seems to be the middle of June 2019.
- **Activity 3-5: Procure equipment, instruments/tools and materials for the NRW Training.**
  - Progress: 50%, Behind: 11.0 months
  - The equipment should be procured by comparison in quotations between March and April 2019.

Progress of Activities

- **Activity 3-6: Develop teaching/learning materials for the NRW Training with incorporating good practices from baseline survey into the materials if any.**
  - Progress: 20%, Behind: 7.0 months
  - Partially prepared, but delayed due to postponement and rescheduling of JICA Experts' trips to South Africa.
  - To develop teaching/learning materials smoothly in facilitator technical meetings (Activity 3-7), JICA Experts should take the initiative in drafting the materials.
  - Existing NRW-related documents should be utilized, for example, which was prepared well by Water Research Commission (WRC). Teaching/learning materials should be practical/interpretive for municipal staff as supplementary to existing documents. This leads strengthening understanding and cooperation of stakeholders for the NRW Training.

A 01 - 218

Progress of Activities

- **Activity 3-7: Prepare and conduct Facilitator Technical Meetings by both facilitators and JICA Experts for the NRW Training.**
  - Progress: 0%, Behind: 4.0 months
  - Facilitator technical meetings are supposed to be conducted between March and April 2019.
  - However, it seems to delay due to delay of obtaining official concurrence of facilitators (Activity 3-3).
  - Facilitator technical meetings should be postponed to between June and July 2019.
  - DWS financial constraints has caused to difficulty in conducting facilitator technical meetings.
- **Activity 3-8: Prepare for conducting the NRW Training**
  - Progress: 0%, Behind: 1.0 months
  - As initial development of the NRW Training, the target participating municipalities (trainees) are selected and funding support will be proposed to LGSETA.

Progress of Activities

- The NRW Training should be implemented regularly based SOPs and financial plan, and according to multiple-year programme and annual plan.
- **Activity 3-9: Conduct the NRW Training by facilitators with support from JICA Experts.**
  - Progress: 0%, Behind: 0.0 months
  - The NRW Training is scheduled to commence in July 2019.
  - However, it should be rescheduled to September 2019 due to postponement of Activity 3-2, 3-3, 3-4 and 3-7.
- **Activity 3-10: Monitor the NRW Training and feed the results back under training improvement cycle.**
  - Same as Activity 3-9
- **Activity 3-11: Verify effects of the NRW Training in sampled municipalities.**
  - Same as Activity 3-9

Issues, Challenges and Solutions

1. **Delay of the Project**
2. **Rescheduling of the 2nd Training in Japan**
3. **DWS's Budget and Funding Support to the Project**
4. **Less Collaboration with SALGA (a Pre-condition for the Project)**
5. **Project Management and Operation**

1. Delay of the Project

Details and Cause:

According to agreements and current PO_3 revised in the previous 3rd JCC meeting in November 2018 and the follow-up meeting in December 2018, tasks (activities) have been carried on.

However, some of them have delayed or may delay as shown in the following Table.

A 01 - 219

	Items	Timeline	Status/Cause
A	The task team (WUE) shall finalize the criteria and list, pre-communicate with candidate for their engagement.	By the end of January 2019.	Done
B	The task manager (WUE) shall finalize the terms of reference or equivalent based on criteria and result of the above communication, and shall submit the final list of candidate facilitators and the target participating municipalities to task manager for official liaison.	By the end of January 2019.	Done
C	To complete securing facilitators and the target participating municipalities (workplace and trainees) including memorandum of understanding/agreement or equivalent.	By the end of February 2019	Process of obtaining official concurrence has started.
D	To hold facilitator technical meetings and/or take alternative means.	1st March to 30th April 2019	It seems to delay due to delay of item "C".
E	To make strategic use of training in Japan for facilitators currently-scheduled in the second half of May 2019.	The second half of May 2019	It won't be possible due to delay of item "C" and effect by general election May 2019.
F	To draft learning/teaching materials under the initiatives of JICA Experts prior to the above facilitator technical meeting and/or alternative means.	By the end of February 2019	It has delayed due to postponing and rescheduling JICA Experts' trips to South Africa.

In addition, procurement of the NRW Training yard targeting termination in the end of April 2019 has delayed because of declination by several contractors to bid tender and then has been rearranged by necessity. Now that bid tender was held successfully on 28th February 2019, mobilization has just commenced. However, the procurement should be re-scheduled.

Action to be taken:

According to updated work breakdown structure (WBS) considering the above progress, the Project should **revise Plan of Operations from PO_3 to PO_4 comprehensively** in consideration of reschedule of the 2nd Training in Japan (facilitators).

Roles of Responsible Persons/Organization:

- The **JCC members** are requested to **approve the PO revision** in the 4th JCC meeting.
- **PMC** ensures **active engagement** and **adherence to WBS**.
- **JICA Experts** ensure **encouragement for schedule/progress management** by updating WBS.
- In the initial set-up of the NRW Training, **JICA supports DWS for logistics** (transport and accommodation) **financially** in **securing** (**mobilization**) of facilitators and the target participating municipalities, as well as in conducting **facilitator technical meetings**.

2. Rescheduling of the 2nd Training in Japan

Details and Cause:

DWS highlighted the general election 2019 may affect the Project implementation including activities and inputs in May and June 2019, particularly the 2nd Training in Japan (facilitators) scheduled currently in the second half of May 2019 because of possible temporary slowdown of DWS's internal procedures by new administration. To deal with this, DWS suggested to postpone the 2nd Training in Japan to July 2019 or later.

Action to be taken:

In response to the DWS's suggestion as well as in view of delay in facilitator selection/nomination, the 2nd Training in Japan should be **rescheduled** to provisionally **29th July to 9th August 2019**.

A 01 - 220

Roles of Responsible Persons/Organization:

- The **JCC members** are requested to **approve this reschedule** as a part of the PO revision.
- **PMC (WUE, IWS)** secures **facilitators** to be **nominated as participants officially** with their **specific names not later than the end of April 2019** for application process.
- **JICA Experts reviews/rearranges training curriculum** in accordance with the NRW Training development and facilitators' expertise.

3. DWS's Budget and Funding Support to the Project

Details and Cause:

DWS's financial constraints in FY2018/19 have more or less affected the Project implementation including logistics of the Project members, which has hindered smooth securing (mobilization) of facilitators and the target participating municipalities. For the FY 2019/20, **expenditure of the NRW Training was estimated and incorporated into the DWS's expenditure (budget plan)**. On the other hand, the **draft proposal for funding support was presented to LGSETA (COO & Manager: ETQA)** in December 2018 and February 2019.

Action to be taken:

Status of DWS's budget approval and allocation for the Project in FY2019/20 and **any of updates** should be **followed up and shared timely** among the Project members and JICA Experts. However, **immediate implementation of critical tasks** is crucially important, particularly **securing (mobilization)** of facilitators and the target participating municipalities through **face-to-face communication** between DWS and each stakeholder. To deal with this, **financial support to DWS for logistics should be taken**.

In response to comments from LGSEA, the proposal for funding support should be **revised/finalized and resubmitted** to LGSETA to be put on the agenda of board meeting on **20th March 2019**, followed by Service Level Agreement to be in April 2019 if the proposal is accepted.

Roles of Responsible Persons/Organization:

- **PMC Chairperson follows up** the budget approval and allocation for the Project in FY2019/20 and **share** it **timely** with Project members and JICA Experts.
- **PMC (OS, WUE) revises/finalizes and resubmits** the proposal to LGSETA **surely not later than 13th March 2019**, which should be **authorized by the DWS management**.
- The Project Team brings up this issue as an agenda of the JCC meeting to get a specific commitment from DWS.
- **JICA Experts support** PMC and relevant task teams.

A 01 - 221

4. Less Collaboration with SALGA (a Pre-condition for the Project)

Details and Cause:

This "un-remedied" challenge was discussed in the past JCC meetings. Although the Project Team has observed sometimes good performance of SALGA's regional/provincial offices, however DWS has been not able to involve SALGA head office adequately in the Project since last year 2018, because of personnel transfer of a key counterpart, non-function of successor(s), limited resources in the section in charge.

Action to be taken:

To establish **functional/sustainable institutional arrangement** with stakeholders to build the NRW Training model that works, relationship with SALGA (head office) should be **reviewed fundamentally**, and **alternative measures** against this un-remedied challenge should be taken such as **strengthening (or shifting to) relationship with SALGA's regional/provincial offices** closer to municipalities as well as building up **relationship with CoGTA**.

Roles of Responsible Persons/Organization:

- **DWS reviews seriously relationship with SALGA head office** for functionality and sustainability of institutional arrangement of the NRW Training, and draws a **concrete conclusion (NOT to be ad-hoc) before the end of March 2019**.
- If applicable, **DWS strengthens relationship with SALGA's regional/provincial offices** closer to municipalities to be targets of the NRW Training, **before the end of March 2019**.
- **DWS builds up relationship with CoGTA before the end of March 2019**.
- The Project Team brings up this issue as an agenda of the JCC meeting to get a specific commitment from DWS.
- **JICA Experts support** PMC and relevant task teams.

5. Project Management and Operation

Details and Cause:

The Project management has been improved since November 2018 by establishing new project operating structure "**Project Management Committee (PMC)**" consisting of a chairperson, secretariats, task teams (leaders and members) together with JICA Experts. However, the **full-time official(s)** has **not been assigned yet** due to **shortage in human resources**.

Action to be taken:

The task teams should be **reviewed** and **reorganized** according to **work breakdown structure (WBS)** and **progress.**

A 01 - 222

It has been **requested repeatedly**, the Project should have the **full-time official(s)** to the Project to be **driving force (champion)** of the NRW Training and **coordinate/link** task teams and stakeholders **practically under the PMC Chairperson**.

Roles of Responsible Persons/Organization:

- **PMC** ensures **active engagement, initiatives and regular communication/reporting** (task meeting at least **once in a week** by task).
- **DWS** secures the **full-time official(s)** to the Project **before the end of March 2019**.
- The Project Team brings up this issue as an agenda of the JCC meeting to get a specific commitment from DWS.
- **JICA Experts** ensure **appropriate support** and **facilitation**.

Revision of Plan of Operations

According to the above progress, issues, challenges and proposed solutions, the Project Team suggests the **revision of Plan of Operations**, from currently Ver. 3 to Ver. 4. Summary is shown below:

	Activities (and Inputs)	Current (PO_3)	Revised (PO_4)
1-4	The 2nd Training in Japan	The second half of May 2019	Provisionally 29th July - 9th August 2019
1-5	Seminar(s) with stakeholders	March 2019	Provisionally June 2019 (after facilitator mobilization and when other forums are held by DWS, SALGA or CoGTA)
2-2	Securing Budget and Fund	By the end of April 2019	No change
2-4	SOP development	By the end of July 2019	By the end of July 2019
2-7	Capacity assessment	March 2019	June 2019 (after facilitator mobilization)
3-2	Selection of the target participating municipalities	By the end of February 2019	By the end of April 2019
3-3	Selection of facilitators	By the end of February 2019	By the end of April 2019
3-4	Development of the NRW Training yard	By the end of April 2019	By the middle of June 2019
3-6	Teaching/learning materials development	By the end of April 2019	1st draft by the end of March, and finalized with facilitators by the end of June 2019
3-7	Facilitator Technical Meetings	By the end of April 2019	By the end of June 2019
3-8	Preparation of the NRW Training	By the end of April 2019	By the end of July 2019
3-9	The NRW Training	From July 2019	From September 2019

Red-colored : Key/focal Activities

The Project Team kindly requests JCC members to note/accept/approve the progress, proposed solutions, revision of PO.

Thank you very much.

THE END

Observations from JICA HQ Mission

12 March, 2019

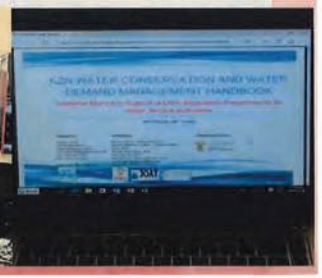
IBTC-NWRI, DWS, Pretoria

Yoshiki Omura (Senior Advisor) and Hiroki Ishimaru (Program Officer)

Thank you for arranging field visits in KZN!!

1. All WSPs have strong desire for "Municipal Plumbing" / "Water Inspector" / "W.R.P."
2. Existing training resources should be fully utilized.

→ How do we collaborate with WSAs etc. in all provinces?



(1) Cooperation with DWS-provincial, SALGA and CoGTA

- DWS-provincial
  Communicate with Focal point of each province
- SALGA/CoGTA
  Join their Conference and Annual Assembly at national and provincial level

→Please visit all provinces with Japanese Colleagues and meet them at provincial levels and candidate WSAs by the end of April (deadline for securing training resources)

A 01 - 224

(2) DWS Full-time resource (Coordinator of NRW training)

- Please assign "Full-time resource" to work as coordinator by the end of April (the end of phase-1).
- Even young officer/artisan is welcomed. The most important & urgent task of DWS is 3C:
  - "Collaborate with training resources in all provinces"
  - "Cooperate with DWS-provincial, SALGA and CoGTA"
  - "Coordinate NRW trainings".

→If the situation still cannot change, DWS-Nat might become just as "IBTC provider" and main C/P would be replaced to WSAs & provincials struggling for NRW day after day.

RSA-IBTC

For discussion with DWS

11 March 2019

JICA Mission

20 months elapsed already and Phase-1 soon ends.

No additional C/P has been assigned to the Project yet.

Thanks to DWS arrangement, the mission of JICA HQ visited three water providers in KZN last week.

JICA HQ fielded the Team for cooperation with RSA people. (You can't leave every thing to the Team alone.)

The mission was impressed by municipal water providers, which are trying to reduce NRW or leakage by their own initiatives.

If DWS picks up such efforts at municipality level and disseminates them, IBTC will become the hub of cooperation among municipalities.

10

The mission emphasizes DWS's responsibilities in NRW reduction:

- Establishing sector policy,
- Regulation, and
- Funding

12

Why such ideas and efforts were not shared by other providers?

11

NGIYABONGA

Appendix 5

To Chief Representative of JICA South Africa Office

PROJECT MONITORING SHEETS (DRAFT)

Project Title: Project for Strengthening the Training Capacity of IBTC on Non-Revenue Water

Version of the Sheet: Ver. 3 (Term covered: August, 2018 - February, 2019)

Name: Akinori Miyoshi

Title: Chief Advisor

Submission Date: 12 March 2019

Contents

I. Summary 2

1. Progress 2
- 1-1 Progress of Inputs 2
- 1-2 Progress of Activities 5
- 1-3 Achievement of Outputs 17
- 1-4 Achievement of Project Purpose 20
- 1-5 Changes of Risks and Actions for Mitigation 21
- 1-6 Other matters to be considered 21

2. Delay of Work Schedule and/or Problems 22
- 2-1 Delay of the Project (Phase-1) 22
- 2-2 Reschedule of the 2nd Training in Japan 23
- 2-3 DWS's Budget and Funding Support to the Project 23
- 2-4 Less Collaboration with SALGA 24
- 2-5 Project Management and Operation 25

3. Revision of Project Design Matrix and Plan of Operations 26
- 3-1 Project Design Matrix (PDM) 26
- 3-2 Plan of Operations (PO) 26

4. Preparation by the South African side toward after completion of the Project 26

II. Project Monitoring Sheet I & II 27

Annex 27

Abbreviations 27

I. Summary

1 Progress

1-1 Progress of Inputs

[The South African Side]

Project Personnel

All project members including Chairperson of Project Management Committee which was proposed and established newly in Nov. 2018, Project Director, Project Manager, and members and associates have been involved in the Project (refer to Table 1).

Table 1: List of Project Members

Role in Project Implementation	Title and Position
Project Management Committee (PMC) Chairperson	Chief Director, Engineering Services, NWRI, DWS Mr. Aloious Chaminuka
Project Director PMC Task Manager	Director, Technical Engineering Services, NWRI, DWS Mr. Vincent Monene
Co-Project Director	Programme Manager, Municipal Infrastructure and Services, SALGA Ms. Shantal Harigobin
Project Manager (Operational) PMC Task Manager	Centre Manager, IBTC, DWS Ms. Rosa Mfomadi Rahube
Co-Project Manager (Technical) PMC Task Manager	Director, Water Use Efficiency, P&I, DWS Mr. Hadebe Xolani
Member PMC Secretary / Task Manager	Director, ODA, IWS, DWS Mr. Albert Mmbidi
Member	Training Manager, IBTC, DWS Ms. Kgoputso Sekgoilane
Member	Quality Assurer, IBTC, DWS Ms. Makola Lerato
Member	Water Use Efficiency, P&I, DWS Mr. Thabo Masike / Mr. Padi Andries
Member	Director, Strategic Water Sector Support, P&I, DWS Ms. Iris Mathye
Member	Water Sector Institutional Development, P&I, DWS Ms. Margaret Matlala / Mr. Mtsweni Dennis
Member PMC Task Manager	Director, Operational Support, PMU, DWS Ms. Kentse Mathiba
Member	Water Sector Skill Development & Special Project, PMU, DWS Mr. Maputha Tsibiso
Member	Director, HRD, DWS Ms. Merriam Moagi
Member	HRD, DWS Mr. Matome Makwaeba

Role in Project Implementation	Title and Position
Member	Construction, NWRI, DWS Mr. Armand Basson / Mr. Riaan Stassen
Member(s)	NRW Training Personnel, IBTC, DWS (Technical member(s) routinely assigned to IBTC)
Member *Municipal Coordinator (Tech.)	Programme Manager, Municipal Infrastructure and Services,, SALGA Ms. Shantal Harigobin
Member * Municipal Coordinator (HRD)	SALGA and/or Municipal Institute of Learning (e.c. eThekwini Metro) Representative(s)
Members	Facilitators on the NRW Traininig
Secretary	Official Development Assistance, IWS, DWS Ms. Mtsweni Zanu

Land, Building and Facilities

Office spaces and necessary facilities at the Infrastructure Branch Training Centre (IBTC) and Water Use Efficiency's office of the Department of Water and Sanitation (DWS) have been provided to the Japanese side. WiFi and network have been not available due to DWS's security restriction.

Local Costs

Administrative costs in IBTC as well as operational costs for official trips of project members, communication and etc. have been provided. However, in fiscal year 2018, project members of DWS have faced a challenge in processing official trips and expenditure due to financial constraints.

[The Japanese Side]

JICA Experts

JICA Expert Team consisting of a Chief Advisor and members for seven areas of expertise were assigned to work in South Africa (refer to Table 2).

Table 2: List of JICA Experts

Position in the Project	Name
Chief Advisor / NRW Management	Mr. Akinori MIYOSHI
Deputy Chief Advisor / NRW Management	Mr. Taketoshi FUJIYAMA
Skills Programme Planning / Organization Coordination	Mr. Kenichiro SUGIYA
Water Leakage Detection	Mr. Hiroki NIIMURA
Water Distribution Control / Commercial Loss	Mr. Hiroyuki MORITA
Training Yard Design and Supervision	Mr. Masuji IDE
Procurement / Administrative Coordination	Mr. Toshinobu KASUYA
Training Management / Human Resource Development	Mr. Nobutaka MARUYAMA

Equipment

Based on the NRW Training curriculum, the design including selection, specifications and cost estimation of equipment was completed together with the Directorate of Engineering Services of

National Water Resources Infrastructure (NWRI) of DWS.

Procurement, currently quotation comparison from suppliers for ultra-sonic flow meter and leakage detection-related equipment, is in process.

Facilities

Based on the NRW Training curriculum, the design including drawing, specifications and cost estimation was completed together with the Directorate of Engineering Services of National Water Resources Infrastructure (NWRI) of DWS.

Procurement is in process, and contract agreement is about to be signed by JICA Expert Team and a contractor awarded through nominated competitive tender held on 28th February 2019.

Training of the South African Project Members

There is no training in Japan in this monitoring term.

In the past, the 1st training in Japan was conducted between 16th and 27th of April 2018, for nine (9) delegation officials at the level of management from DWS, South African Local Government Association (SALGA), Local Government Sector Education and Training Authority (LGSETA), three Metro Municipalities (Tshwane, Cape Town and Ethekwini) and the Tshwane University of Technology.

In the coming months, the 2nd Training in Japan for ten (10) facilitators from DWS and stakeholders will be held.

No	Activity	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1		Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3	
		Achievement	Issues, Challenges & Solution	Achievement	Issues, Challenges & Solution
(1-3)	[PDM_1] Share training resources, good practices, lessons learnt with SALGA and Municipalities.	Progress: 0% Behind: 4.0 months	Due to delay in Activity 1-1 and 1-2, this Activity cannot be completed in the remaining period of the Phase 1.	** Incorporated into similar Activity 1-5 of PDM_2 in PDM revision*	
1-3	[PDM_2] Review needs of skills development on NRW, existing qualifications, roles and responsibility of DWS/IBTC.			- Progress: 95%, Behind PO_3: 7.0 months	- This activity will be completed by final review for seminar (Activity 1-5).
(1-4)	[PDM_1] Incorporate good practices into training materials.	Progress: 0% Behind: 3.0 months	Due to delay in Activity 1-1 and 1-2, this Activity cannot be completed in the remaining period of the Phase 1.	** Incorporated into similar Activity 3-7 of PDM_2 in PDM revision*	
1-4 (1-5)	[PDM_1] Benchmark water supply services and its skills development in Japan. [PDM_2] Benchmark water supply services and its skills development in Japan.	Progress: 50% Behind: 0.0 months The first training in Japan (management course) was conducted in April 2018.	None	- Progress: 50%, Behind PO_3: 0.0 months	- The 2nd training in Japan, which targets mainly facilitators to be selected, should be implemented for strengthening municipal NRW management skills and IBTC's training capacity. - Contents of the 2nd training should correspond to the NRW Training curriculum and be reviewed and finalized in accordance with selection of facilitators. - In line with Activity 3-7, the 2nd training is scheduled currently between 20th and 31st May 2019 for 2 weeks. - However, the 2nd training should be rescheduled (postponed) in consideration of progress of other activities and inputs, and also general election, associated changes and events in May and June

1-2 Progress of Activities

Activities for Output-1: [PDM_1] Training information on water supply sector is accumulated at IBTC and shared with SALGA and Municipalities.]

[PDM_2] Skill development, status-quo and challenges of NRW, and needs in municipalities are analyzed and shared with stakeholders.

Table 3: Progress of Activities for Output-1

No	Activity	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1		Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3	
		Achievement	Issues, Challenges & Solution	Achievement	Issues, Challenges & Solution
1-1	[PDM_1] Conduct baseline survey on Skills Development in water supply sector (programme, human resources, materials and management). [PDM_2] Conduct baseline survey on skills development and NRW in municipalities	Progress: 95% Behind: 6.0 months - The Project visited/ interviewed 44 Municipalities and 5 Water Boards, then collected answers from 24 and 2 each. - Interview results supplement answers to questionnaire. - The Project utilized existing NRW-related reports and information obtained at Water Loss Conference in Cape Town in May 2018. - Questionnaire survey to 108 Municipalities to be followed up by DWS on behalf of SALGA was not implemented.	- Although SALGA suggested and prepared simple questionnaire to 108 municipalities, DWS requested to suspend it to avoid confusion to municipalities. The Project Team concluded to finalize the survey by using the collected questionnaires as sample.	- Completed.	-
1-2	[PDM_1] Compile and analyze training resources, good practices, lessons learnt in water supply sector. [PDM_2] Compile and analyze skills development and NRW in municipalities.	Progress: 95% Behind: 4.0 months Baseline Survey report was drafted based on results of baseline survey.	To be finalized soon.	- Progress: 95%, Behind PO_3: 7.0 months - Baseline survey report was presented in the 2nd JCC meeting, which includes status quo, overview of NRW in South Africa, observation and suggestions.	- This activity will be completed by final review for seminar (Activity 1-5).

No	Activity	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1		Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3	
		Achievement	Issues, Challenges & Solution	Achievement	Issues, Challenges & Solution
2-1 (2-2)	[PDM_1] Draft proposed organogram of IBTC including NRW Training Section. [PDM_2] Prepare the NRW Training Business Plan.	Progress: 50% Behind: 3.0 months - The Project Team had a series of discussions together with Activity 3-3, and shared a common view. - Developing new organizational structure of DWS as well as IBTC is ongoing. - The NRW Training Business Plan is being discussed and prepared. - The Project confirmed possibility of collaboration with LGSETA as a funding partner for the NRW Training. The Project Team visited several public/private training providers for training management information (Eskom, SAPS, SAAF, NECSA, Water Academy, etc/)	- Ensuring facilitators, workplace training and funding to all necessary expenses is of importance. - The Project prepares proposal to funding agencies such as LGSETA to establish funding model.	- Progress: 95%, Behind PO_3: 10.0 months - Based on the results of the activities for Output-1, the NRW Training Business Plan was drafted and presented in the 3rd JCC meeting.	- The NRW Training Business Plan should be approved in the next JCC meeting after review and finalization of selection criteria of facilitator and target participating municipalities (trainees).
2-2	[PDM_2] Prepare and take procedures for funding the NRW Training.			- Progress: 75%, Behind PO_3: 6.0 months - Expenditure of the NRW Training was estimated and incorporated into the DWS's expenditure (budget plan) 2019. - The proposal for funding support was presented to LGSETA (COO & Manager: ETQA) in December 2018 and February 2019.	- Progress of budget approval and allocation should be followed up. - In response to comments from LGSEA, the proposal for funding support should be revised/finalized and resubmitted to LGSETA to be put on the agenda of board meeting on 20th March 2019, followed by Service Level Agreement in April 2019 if proposal is accepted.

No	Activity	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1		Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3	
		Achievement	Issues, Challenges & Solution	Achievement	Issues, Challenges & Solution
					2019.
1-5 (1-6)	[PDM_1] Hold a seminar on the result of the baseline survey and benchmark. [PDM_2] Hold a seminar and share on the results of the baseline survey and benchmark with stakeholders.	Progress: 0% Behind: 0.0 months	Due to delay in Activity 1-1 and 1-2, this Activity cannot be completed in the remaining period of the Phase 1.	- Progress: 0%, Behind PO_3: 0.0 months	- A seminar on the results of the baseline survey, benchmark and the NRW Training curriculum as an outcome, should be held as soon as the selection of facilitators and its official concurrence, currently scheduled in March 2019. - The seminar has been suggested to be held jointly with water services-related events by DWS, SALGA, CoGTA and MISA. - However, the seminar cannot be held unless official concurrence of facilitators is confirmed.

Activities for Output-2: [PDM_1] IBTC's training management capacity in water supply sector is improved.

[PDM_2] IBTC's NRW Training capacity is improved.

Table 4: Progress of Activities for Output-2

No	Activity	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1		Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3	
		Achievement	Issues, Challenges & Solution	Achievement	Issues, Challenges & Solution
(2-1)	[PDM_1] Review roles and responsibility of IBTC for skills development of Municipalities in water supply sector based on the results of Output-1.	Progress: 95% Behind: 5.0 months The Project Team had a series of discussions together with Activity 3-3, and shared a common view.	None	** Incorporated into Activity 1-3 of PDM_2 in PDM revision*	

No	Activity	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1		Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3	
		Achievement	Issues, Challenges & Solution	Achievement	Issues, Challenges & Solution
2-7	[PDM_1] Conduct capacity assessment of IBTC's organization, individuals and facilitators developed. [PDM_2] Conduct capacity assessment of IBTC.	Progress: 0% Behind: 0.0 months	None	- Progress: 0%, Behind PO_3: 0.0 months	- Capacity assessment of IBTC and/or municipalities should be conducted after the selection of facilitators, the target participating municipalities and its official concurrence

Activities for Output-3: [PDM_1] Trainings on Non-Revenue Water (NRW) are conducted at IBTC.

[PMD_2] The NRW Training is conducted with training improvement cycle.

Table 5: Progress of Activities for Output-3

No	Activity	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1		Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3	
		Achievement	Issues, Challenges & Solution	Achievement	Issues, Challenges & Solution
(3-1)	[PDM_1] Review situation/ needs of skills development on NRW from the results of baseline survey of Activity 1-1.	Progress: 95% Behind: 5.0 months - The Project Team had a series of discussions together with Activity 1-1 and 1-2, and shared a common view. The Project referred to existing qualifications, unit standards, newly-developed qualification, private training providers, existing NRW-related reports and information obtained at Water Loss Conference in Cape Town in May 2018.	None	** Incorporated into Activity 1-3 of PDM_2 in PDM revision*	
(3-2)	[PDM_1] Select registered Unit Standards related to NRW from existing qualifications of SAQA.	Progress: 95% Behind: 5.0 months - The Project Team concluded to make our training not qualification-oriented with accreditation but problem-solving-oriented with	Legacy qualifications based on Unit Standards are no longer provided because of transition to QCTO in quality assurance. Not only theoretical and practical training, but the site for workplace training should	** Incorporated into Activity 1-3 of PDM_2 in PDM revision*	

No	Activity	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1		Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3	
		Achievement	Issues, Challenges & Solution	Achievement	Issues, Challenges & Solution
2-3	[PDM_1] Prepare Terms of Reference for Training Sections related to skills development in water supply sector. [PDM_2] Prepare Terms of Reference for the NRW Training.	Progress: 0% Behind: 5.0 months	Due to delay in Activity 2-1 and 2-2, this Activity cannot be completed in the remaining period of the Phase 1.	- Progress: 95%, Behind PO_3: 10.0 months - Organogram, personnel plan and terms of reference for the NRW Training were prepared and described in the NRW Training Business Plan (Activity 2-1).	- This activity will be completed by finalization of the NRW Training Business Plan (Activity 2-1). - DWS will second staff or combine posts if difficult to employ new staff.
2-4	[PDM_1] Prepare draft Standard Operating Procedures (SOP) of skills development provision. [PDM_2] Prepare Standard Operation Procedures (SOP) of the NRW Training.	Progress: 0% Behind: 5.0 months	Due to delay in Activity 2-1 and 2-2, this Activity cannot be completed in the remaining period of the Phase 1.	- Progress: 10%, Behind PO_3: 10.0 months - Subjects to be covered by standard operating procedures (SOPs) and manuals were listed.	- Process and formats/ templates used throughout planning, implementation, operation and maintenance should be prepared and recorded as SOPs and manuals by IBTC's quality assurer and task teams. - SOP Task Team has been preparing the standard format/template. - Existing process and formats/templates of DWS aiming at ISO9001 should be utilized if any.
2-5	[PDM_1] Revise the SOP through the activities of Output-3. [PDM_2] Revise the SOP of the NRW Training through the activities of Output-3.	Progress: 0% Behind: 0.0 months	None	- Progress: 0%, Behind PO_3: 0.0 months	- SOPs and manuals should be used in the NRW Training, and improved/ revised by reflecting knowledge and lesson learnt obtained through the activities of Output-3
2-6	[PDM_1] Draft revised IBTC Strategic Business Model. [PDM_2] Revise the NRW Training Business Plan through the activities of Output-3.	Progress: 0% Behind: 0.0 months	None	- Progress: 0%, Behind PO_3: 0.0 months	- The NRW Training Business Plan should be revised if any difficulty, non-functionality and incoherence in business model, training operation and implementation.

No	Activity	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1		Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3	
		Achievement	Issues, Challenges & Solution	Achievement	Issues, Challenges & Solution
				participating municipalities (trainees) as workplace were proposed and updated.	organizational communication between DWS and the municipalities. - Obtaining official concurrence from each stakeholder should be postponed. - To establish the NRW Training as a successful model for NRW reduction, the target participating municipalities should be strategically-selected during the Project period.
3-3 (3-4)	[PDM_1] Select facilitators (qualified/skilled artisans on water reticulation or equivalent) for NRW Skills Programme from Municipalities and IBTC (DWS). [PDM_2] Secure facilitators (experienced/skilled personnel on water reticulation or equivalent) for the NRW Training from DWS/IBTC and stakeholders.	Progress: 0% Behind: 5.0 months	Due to delay in Activity 3-1 to 3-3, this Activity has been suspended and cannot be completed as scheduled in the remaining period of the Phase 1.	- Progress: 50%, Behind PO_3: 10.0 months - Selection criteria for facilitators was finalized. - Candidate facilitators were proposed and updated.	- The facilitators were supposed to concur officially by the end of February 2019. - However, it has delayed due to delay of official inter-organizational communication between DWS and the organizations to which they belong. - Obtaining official concurrence from each stakeholder should be postponed. - Though participants-to-be in the 2nd Training in Japan (scheduled in May 2019) should be nominated from facilitators, application process has not started yet.
(3-5)	[PDM_1] Schedule Training of Trainer (facilitator) (TOT), Assessors and Moderators for NRW Skills Programme at	Progress: 0% Behind: 5.0 months	Due to delay in Activity 3-1 to 3-3, this Activity has been suspended and cannot be completed as scheduled in the	** Incorporated into Activity 3-7 of PDM_2 in PDM revision*	

No	Activity	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1		Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3	
		Achievement	Issues, Challenges & Solution	Achievement	Issues, Challenges & Solution
		immediate impacts for municipalities. The Project designs the NRW Training by referring to and utilizing existing qualification / training model, for example, Unit Standard (US254118: Apply water loss control principles) and newly-developed qualification (Water Reticulation Practitioner)	be included in the NRW Training.		
3-1 (3-3)	[PDM_1] Design NRW Skills Programme consisting of the selected Unit Standards and supplementary items if any. [PDM_2] Design the NRW Training based on the results of Output-1.	Progress: 95% Behind: 5.0 months - The Project Team concluded to make our training not qualification-oriented with accreditation but problem-solving-oriented with immediate impacts for municipalities. - The Project designs the NRW Training by referring to and utilizing existing qualification / training model, for example, Unit Standard (US254118: Apply water loss control principles) and newly-developed qualification (Water Reticulation Practitioner)	Legacy qualifications based on Unit Standards are no longer provided because of transition to QCTO in quality assurance. Not only theoretical and practical training, but the site for workplace training should be included in the NRW Training.	- Completed - The NRW Training was designed based on observation and concepts obtained through the activities of Output-1.	- Based on modules of the NRW Training curriculum, the NRW Training should be customized flexibly according to conditions and needs of participating municipalities. - Physical support in workplace training at participating municipalities should be considered. - For sustainability of the NRW Training and interaction with qualification "Water Reticulation Practitioner", the NRW Training should be developed and implemented.
3-2	[PDM_2] Secure the site(s) for workplace of the NRW Training.			- Progress: 50%, Behind PO_3: 4.0 months - Selection criteria for municipalities (trainees) as workplace was finalized. - Top-5 municipalities of each Province and the target	- The target participating municipalities (trainees) as workplace were supposed to concur officially by the end of February 2019. - However, it has delayed due to delay of official inter-

No	Activity	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1		Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3	
		Achievement	Issues, Challenges & Solution	Achievement	Issues, Challenges & Solution
	[PDM_2] Procure equipment, instruments/tools and materials for the NRW Training.		remaining period of the Phase 1.	distribution and procurement conditions in South Africa. - The NRW Training equipment was designed based on modules of the NRW Training curriculum, information from DWS, municipalities as water services authority and local consultants.	- The equipment should be procured by comparison in quotations as a procurement process of JICA Expert Team in accordance with JICA's procurement guideline and regulation between March and April 2019.
3-6 (3-8)	[PDM_1] Develop training / learning materials for NRW Skills Programme at IBTC. [PDM_2] Develop teaching/ learning materials for the NRW Training with incorporating good practices from baseline survey into the materials if any.	Progress: 0% Behind: 3.0 months	Due to delay in Activity 3-1 to 3-3, this Activity has been suspended and cannot be completed as scheduled in the remaining period of the Phase 1.	- Progress: 20%, Behind PO_3: 7.0 months - Partially prepared, but delayed due to postponement and rescheduling of JICA Experts' trips to South Africa.	- To develop teaching/learning materials smoothly in facilitator technical meetings (Activity 3-7), JICA Experts should take the initiative in drafting the materials. - Existing NRW-related documents should be utilized, for example, which was prepared well by Water Research Commission (WRC). Teaching/learning materials should be practical/ interpretive for municipal staff as supplementary to existing documents. This leads strengthening understanding and cooperation of stakeholders for the NRW Training.
3-7 (3-9)	[PDM_1] Conduct TOT by both JICA Experts and South African Facilitators for NRW Skills Programme at IBTC. [PDM_2] Prepare and conduct Facilitator Technical Meetings by both facilitators and JICA Experts for the NRW Training.	Progress: 0% Behind: 0.0 months	None	- Progress: 0%, Behind PO_3: 4.0 months	- Through several facilitator technical meetings, significance of the NRW Training should be shared properly among the selected facilitators. Curriculum, modules, teaching/learning materials, and workplace

No	Activity	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1		Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3	
		Achievement	Issues, Challenges & Solution	Achievement	Issues, Challenges & Solution
	IBTC.		remaining period of the Phase 1.		
3-4 (3-6)	[PDM_1] Develop training yard for NRW Skills Programme at IBTC. [PDM_2] Develop training yard for the NRW Training at IBTC.	Progress: 35% Behind: 6.0 months - Training yard designing (facility, specifications and quantity survey) was done tentatively based on provisional NRW training programme.	Due to delay in Activity 3-1 to 3-3, this Activity has been suspended and cannot be completed as scheduled in the remaining period of the Phase 1.	- Progress: 50%, Behind PO_3: 11.0 months - The NRW Training yard was designed based on modules of the NRW Training curriculum, field information, experience and knowledge of municipalities as water service authority, as well as discussions among relevant parties. - The NRW Training yard aims at practices of the training for measuring/ metering, water balance analysis, planning and project proposal. - Water flow meter and customer meters, and pump to be installed will be donated some private suppliers by the cooperation of City of Tshwane. - Bid tender was held successfully on 28th February 2019 as a procurement process of JICA Expert Team in accordance with JICA's procurement guideline and regulation.	- Construction should commence as soon as entering into a contract through evaluation meetings. - According to PO_3, construction is supposed to be completed by the end of April 2019. - However, it has delayed due to re-arrangement of tender process (securement of several bidders). - <u>Construction should be re-scheduled with the successful bidder, of which completion seems to be the middle of June 2019.</u>
3-5 (3-7)	[PDM_1] Procure equipment, instruments/tools and materials for NRW Skills Programme at IBTC.	Progress: 10% Behind: 6.0 months	Due to delay in Activity 3-1 to 3-3, this Activity has been suspended and cannot be completed as scheduled in the	- Progress: 50%, Behind PO_3: 11.0 months - Procurement was planned in consideration of equipment	- The NRW Training equipment should be procured in South Africa for future maintenance and service.

No	Activity	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1		Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3	
		Achievement	Issues, Challenges & Solution	Achievement	Issues, Challenges & Solution
	Programme at IBTC.				
3-9 (3-13)	[PDM_1] Conduct trainings by South African Facilitators for NRW Skills Programme at IBTC. [PDM_2] Conduct the NRW Training by facilitators with support from JICA Experts.	Progress: 0% Behind: 0.0 months	None	- Progress: 0%, Behind PO_3: 0.0 months	- The NRW Training is scheduled to commence in July 2019. - However, it should be rescheduled to September 2019 due to postponement of Activity 3-2, 3-3, 3-4 and 3-7.
3-10 (3-14)	[PDM_1] Monitor implementation of NRW Skills Programme and feed the results back into Annual Plan and Programme [PDM_2] Monitor the NRW Training and feed the results back under training improvement cycle	Progress: 0% Behind: 0.0 months	None	- Progress: 0%, Behind PO_3: 0.0 months	Ditto
3-11 (3-15)	[PDM_1] Verify effects of NRW Skills Programme and provide necessary support by JICA Experts and IBTC in sampled Municipality(ies) if any. [PDM_2] Verify effects of the NRW Training in sampled municipalities.	Progress: 0% Behind: 0.0 months	None	- Progress: 0%, Behind PO_3: 0.0 months	Ditto

No	Activity	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1		Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3	
		Achievement	Issues, Challenges & Solution	Achievement	Issues, Challenges & Solution
					training should be discussed and revised. - Facilitator technical meetings are supposed to be conducted between March and April 2019. - However, it seems to delay due to delay of obtaining official concurrence of facilitators (Activity 3-3). - Therefore, facilitator technical meetings should be postponed to between June and July 2019. - DWS financial constraints has caused to difficulty in conducting facilitator technical meetings.
3-8 (3-10)	[PDM_1] Develop NRW Skills Programme as an accredited programme by SETA. [PDM_2] Prepare for conducting the NRW Training (schedule, budget plan, applying for releasing fund, recruiting participants and etc.).	Progress: 0% Behind: 0.0 months	None	- Progress: 0%, Behind PO_3: 1.0 months	- As initial development of the NRW Training, the target participating municipalities (trainees) are selected and funding support will be proposed to LGSETA. - The NRW Training should be implemented regularly based SOPs and financial plan, and according to multiple-year programme and annual plan.
(3-11)	[PDM_1] Prepare Annual Plan of NRW Skills Programme including budget plan at IBTC.	Progress: 0% Behind: 0.0 months	None	** Incorporated into Activity 3-8 of PDM_2 in PDM revision*	
(3-12)	[PDM_1] Recruit participants from Municipalities through SALGA for NRW Skills	Progress: 0% Behind: 0.0 months	None	** Incorporated into Activity 3-8 of PDM_2 in PDM revision*	

No	Indicator	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1	Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3
	DWS (comparative feature strength/weakness, methodology, etc.)		
1-4	Information sharing occasions are provided.		- None (as scheduled).

Verification of Achievement and Implementing Process

To be of reference to South Africa for improvement, the benchmark report covers similarities and dissimilarity between two countries, and wide-ranging categories with considerations such as water supply administration, human resources development, skills development, training system and facilities, training provision, skill transfer, knowledge management and quality assurance. Recommendations are as below and the report is expected to be utilized for project implementation as well as policy making for human resources development, training provision and WC/WDM including NRW.

Recommendations: long-term commitment on human resources development and skills development, adequate funding to NRW reduction, structured training programme for practical impacts, necessity of an organization like Japan Waterworks Association, collaboration with municipalities in training provision.

Output-2: [PDM_1] IBTC's training management capacity in water supply sector is improved.

[PDM_2] IBTC's NRW Training capacity is improved.

Table 7: Achievement of Output-2

No	Indicator	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1	Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3
PDM_1			
2-1	IBTC organization / individual performance / capacity	- None (as scheduled).	
2-2	Progress of Organizational setting update	- None (as scheduled).	
2-3	Record of SOPs (actual revisions)	- None (as scheduled).	
2-4	Progress of update of IBTC Strategic Business Model	- None (as scheduled).	
PDM_2			
2-1	Appropriate organizational structure for the NRW Training is established at IBTC.		- None (as scheduled).
2-2	No. of revision of Standard Operation Procedures (SOP) of the NRW Training is		- None (as scheduled).

1-3 Achievement of Outputs

Output-1: [PDM_1] Training information on water supply sector is accumulated at IBTC and shared with SALGA and Municipalities.

[PDM_2] Skill development, status-quo and challenges of NRW, and needs in municipalities are analyzed and shared with stakeholders.

Table 6: Achievement of Output-1

No	Indicator	Previous Monitoring (as at Jul.2018) *base on PDM_1&PO_1	Current Monitoring (as at Feb.2019) * based on PDM_2&PO_3
PDM_1			
1-1	List of training resources (by providers, programmes, human resources, manuals, subsidies/grants, etc.)	- Baseline Survey report was drafted.	
1-2	Benchmarked matrix (summary) of Japan and South Africa on water services (comparative features, strength/weakness, methodology, etc.)	- Benchmark report was prepared by participants, then submitted to the DWS management.	
PDM_2			
1-1	Analyzed/organized information of skills development of municipalities is submitted to DWS (list of no. of staff, attended training, mentor resources, training providers, manuals, workshops and yards, subsidies/grants, good practices, etc.)		- Baseline Survey report was drafted.
1-2	Analyzed/organized information of NRW and needs of municipalities is submitted to DWS.		- Baseline Survey report was drafted.
1-3	Benchmarked matrix of Japan and South Africa on water services is submitted to		- Benchmark report was prepared by participants in the 1st training in Japan, then submitted to the DWS management.

1-4 Achievement of the Project Purpose

[PDM$_1$] Project Purpose: NRW Skills Programme is continuously provided at IBTC, based on organizational and technical needs.
[PDM$_2$] The NRW Training is conducted with training improvement cycle.

Table 9: Achievement of the Project Purpose

No	Indicator	Previous Monitoring (as at Jul.2018) *base on PDM$_1$&PO$_1$	Current Monitoring (as at Feb.2019) * based on PDM$_2$&PO$_3$
PDM$_1$			
1	Actual trainings (No. of trainings / trades or skills)	- None (as scheduled).	
2	IBTC organization / individual performance / capacity	- None (as scheduled).	
3	Programmes planned in Strategic Business Model (trades or skills)	- None (as scheduled).	
4	Status of accreditation of NRW Unit Standards applied to SETA	- None (as scheduled).	
PDM$_2$			
1	No. of the NRW Training at IBTC is increased.		- None (as scheduled).
2	No. of water balance submission is increased.		- None (as scheduled).
3	No. of NRW reduction plan in participating municipalities is increased.		- None (as scheduled).
Verification of Achievement and Implementing Process Indicators won't be obtained and there is no implementation during this monitoring period.			

No	Indicator	Previous Monitoring (as at Jul.2018) *base on PDM$_1$&PO$_1$	Current Monitoring (as at Feb.2019) * based on PDM$_2$&PO$_3$
	increased.		
2-3	No. of revision of the NRW Training Business Plan is increased.		- None (as scheduled).
Verification of Achievement and Implementing Process Indicators won't be obtained and there is no implementation during this monitoring period.			

Output-3: [PDM$_1$] IBTC's training management capacity in water supply sector is improved.
[PDM$_2$] IBTC's NRW Training capacity is improved.

Table 8: Achievement of Output-3

No	Indicator	Previous Monitoring (as at Jul.2018) *base on PDM$_1$&PO$_1$	Current Monitoring (as at Feb.2019) * based on PDM$_2$&PO$_3$
PDM$_1$			
3-1	Actual trainings on NRW Skills Programme (No. of trainings, trainees)	- None (as scheduled).	
3-2	Appropriateness of NRW Skills Programme (trainees' evaluation)	- None (as scheduled).	
3-3	Utilization of IBTC's skills training at sampled Municipality(ies)	- None (as scheduled).	
PDM$_2$			
3-1	No. of Facilitator Technical Meeting is increased.		- None (as scheduled).
3-2	No. of NRW Training is increased.		- None (as scheduled).
3-3	Trainee's satisfaction with the NRW Training is increased.		- None (as scheduled).
3-4	No. of feedback/utilization of skills trained into water services at municipalities is increased.		- None (as scheduled).
Verification of Achievement and Implementing Process Indicators won't be obtained and there is no implementation during this monitoring period.			

1-5 Changes of Risks and Actions for Mitigation

None.

(1) Progress of Actions undertaken by the Japanese side

None.

(2) Progress of Actions undertaken by the South African side

None.

1-6 Other matters to be considered (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)

(1) General Election 2019

DWS highlighted, the general election 2019 on 8th May 2019, which was announced officially in early February 2019, may affect the Project implementation including activities and inputs in May and June 2019, particularly the 2nd Training in Japan (facilitators) scheduled currently in the second half of May 2019 because of possible temporary slowdown of DWS's internal procedures by new administration.

(2) DWS's Financial Constraints

DWS's financial constraints in FY2018/19 (April 2018 to March 2019) have more or less affected the Project implementation including logistics of the Project members.

(3) Less Collaboration with SALGA

This un-remedied challenge was discussed in the past JCC meetings. Although the Project Team has observed sometimes good performance of SALGA's regional/provincial offices, however DWS has been not able to involve SALGA head office adequately in the Project since last year 2018, because of personnel transfer of a key counterpart, non-function of successor(s), limited resources in the section in charge.

(4) Project Management and Operation

The Project management has been improved since November 2018 by establishing new project operating structure "Project Management Committee (PMC)" consisting of a chairperson, secretariats, task teams (leaders and members) together with JICA Experts. However, the full-time resource has not been assigned yet.

2 Delay of Work Schedule and/or Problems (if any)

2-1 Delay of the Project

(1) Details and Cause

According to agreements and current PO_3 revised in the previous 3rd JCC meeting in November 2018 and the follow-up meeting in December 2018, tasks (activities) have been carried on. However, some of them have delayed or may delay as below (refer to Table 10).

Table 10: Status of Critical Tasks (Activities)

	Items	Timeline	Status/Cause
A	The task team (Water Use Efficiency) shall finalize the criteria and list, pre-communicate with candidate for their engagement.	By the end of January 2019.	Done
B	The task manager (Water Use Efficiency) shall finalize the terms of reference or equivalent based on criteria and result of the above communication, and shall submit the final list of candidate facilitators and the target participating municipalities to task manager for official liaison.	By the end of January 2019.	Done
C	To complete securing facilitators and the target participating municipalities (workplace and trainees) including memorandum of understanding/agreement or equivalent.	By the end of February 2019	Process of obtaining official concurrence has started.
D	To hold facilitator technical meetings and/or take alternative means such as individualized dialogues with each facilitator even in consideration of DWS's financial constraint. DWS will cope with holding a facilitator technical meeting, utilize individualized dialogues with each facilitator and make a budget request for facilitator technical meetings for the next fiscal year starting April 2019.	1st March to 30th April 2019	It seems to delay due to delay of item "C".
E	To make strategic use of training in Japan for facilitators currently-scheduled in the second half of May 2019. Unless facilitators are secured with their specific names by the end of Feb. 2019, training in Japan cannot be implemented as planned, which causes further delay.	The second half of May 2019	It won't be possible due to delay of item "C" and effect by general election May 2019.
F	To draft learning/teaching materials under the initiatives of JICA Experts prior to the above facilitator technical meeting and/or alternative means.	By the end of February 2019	It has delayed due to postponing and rescheduling JICA Experts' trips to South Africa.

In addition, procurement of the NRW Training yard targeting termination in the end of April 2019

has delayed because of declination by several contractors to bid tender and then has been rearranged by necessity. Now that bid tender was held successfully on 28th February 2019, mobilization has just commenced. However, the procurement should be re-scheduled.

(2) Action to be taken

According to updated work breakdown structure (WBS) considering the above progress, the Project should revise Plan of Operations from PO_3 to PO_4 comprehensively in consideration of reschedule of the 2nd Training in Japan (facilitators). However, the Project may need to reduce the NRW Training intake/cycle from currently-planned 4 to 3 times or reduce the number of the target participating municipalities during the Project period.

(3) Roles of Responsible Persons/Organization

- The JCC members are requested to approve the PO revision in the 4th JCC meeting.
- PMC ensures active engagement and adherence to WBS.
- JICA Experts ensure encouragement for schedule/progress management by updating WBS.
- In the initial set-up of the NRW Training, JICA supports DWS for logistics (transport and accommodation) financially in securing (mobilization) of facilitators and the target participating municipalities, as well as in conducting facilitator technical meetings.

2-2 Rescheduling of the 2nd Training in Japan

(1) Details and Cause

DWS highlighted the general election 2019 may affect the Project implementation including activities and inputs in May and June 2019, particularly the 2nd Training in Japan (facilitators) scheduled currently in the second half of May 2019 because of possible temporary slowdown of DWS's internal procedures by new administration. To deal with this, DWS suggested to postpone the 2nd Training in Japan to July 2019 or later.

(2) Action to be taken

In response to the DWS's suggestion as well as in view of delay in facilitator selection/nomination, the 2nd Training in Japan should be rescheduled to provisionally 29th July to 9th August 2019.

(3) Roles of Responsible Persons/Organization

- The JCC members are requested to approve this reschedule as a part of the PO revision.
- PMC (WUE, IWS) secures facilitators to be nominated as participants officially with their specific names <u>not later than the end of April 2019</u> for application process.
- JICA Experts reviews/rearranges training curriculum in accordance with the NRW Training development and facilitators' expertise.

2-3 DWS's Budget and Funding Support to the Project

(1) Details and Cause

DWS's financial constraints in FY2018/19 have more or less affected the Project implementation including logistics of the Project members, which has hindered smooth securing (mobilization) of facilitators and the target participating municipalities. For the FY 2019/20, expenditure of the NRW Training was estimated and incorporated into the DWS's expenditure (budget plan).
On the other hand, the draft proposal for funding support was presented to LGSETA (COO & Manager: ETQA) in December 2018 and February 2019.

(2) Action to be taken

Status of DWS's budget approval and allocation for the Project in FY2019/20 and any of updates should be followed up and shared timely among the Project members and JICA Experts to take measures, reschedule and implement the Project activities by inputs. However, immediate implementation of critical tasks is crucially important, particularly securing (mobilization) of facilitators and the target participating municipalities through face-to-face communication between DWS and each stakeholder. To deal with this, financial support to DWS for logistics should be taken.
In response to comments from LGSEA, the proposal for funding support should be revised/finalized and resubmitted to LGSETA to be put on the agenda of board meeting on 20th March 2019, followed by Service Level Agreement to be in April 2019 if the proposal is accepted.

(3) Roles of Responsible Persons/Organization

- PMC Chairperson follows up the budget approval and allocation for the Project in FY2019/20 and share it timely with Project members and JICA Experts.
- PMC (OS, WUE) revises/finalizes and resubmits the proposal to LGSETA surely <u>not later than 13th March 2019</u>, which should be authorized by the DWS management.
- The Project Team brings up this issue as an agenda of the JCC meeting to get a specific commitment from DWS.
- JICA Experts support PMC and relevant task teams.

2-4 Less Collaboration with SALGA (a Pre-condition for the Project)

(1) Details and Cause

This "un-remedied" challenge was discussed in the past JCC meetings. Although the Project Team has observed sometimes good performance of SALGA's regional/provincial offices, however DWS has been not able to involve SALGA head office adequately in the Project since last year 2018, because of personnel transfer of a key counterpart, non-function of successor(s), limited resources in the section in charge.

(2) Action to be taken

To establish functional/sustainable institutional arrangement with stakeholders to build the NRW Training model that works, relationship with SALGA (head office) should be reviewed fundamentally, and alternative measures against this un-remedied challenge should be taken such as strengthening (or shifting to) relationship with SALGA's regional/provincial offices closer to municipalities as well as building up relationship with CoGTA.

(3) Roles of Responsible Persons/Organization

- DWS reviews seriously relationship with SALGA head office for functionality and sustainability of institutional arrangement of the NRW Training, and draws a concrete conclusion (NOT to be ad-hoc) before the end of March 2019.
- If applicable, DWS strengthens relationship with SALGA's regional/provincial offices closer to municipalities to be targets of the NRW Training, before the end of March 2019.
- DWS builds up relationship with CoGTA before the end of March 2019.
- The Project Team brings up this issue as an agenda of the JCC meeting to get a specific commitment from DWS.
- JICA Experts support PMC and relevant task teams.

2-5 Project Management and Operation

(1) Details and Cause

The Project management has been improved since November 2018 by establishing new project operating structure "Project Management Committee (PMC)" consisting of a chairperson, secretariats, task teams (leaders and members) together with JICA Experts. However, the full-time official(s) has not been assigned yet due to shortage in human resources.

(2) Action to be taken

The task teams should be reviewed and reorganized according to work breakdown structure (WBS) and progress.
It has been requested repeatedly, the Project should have the full-time official(s) to the Project to be driving force (champion) of the NRW Training and coordinate/link task teams and stakeholders practically under the PMC Chairperson.

(3) Roles of Responsible Persons/Organization

- Now that the Project is at more practical stage, PMC ensures active engagement, initiatives and regular communication/reporting (task meeting at least once in a week by task).
- DWS secures the full-time official(s) to the Project before the end of March 2019.
- The Project Team brings up this issue as an agenda of the JCC meeting to get a specific commitment from DWS.

- JICA Experts ensure appropriate support and facilitation.

3 Revision of Project Design Matrix and Plan of Operations

3-1 Project Design Matrix (PDM)

There is no revision on PDM, however revision might be required hereafter in more practical development and implementation stage of the NRW Training.

3-2 Plan of Operations (PO)

The Project revises schedule of activities and inputs as below (refer to Table 11).

Table 11: Summary of PO Revision (Key Activities only)

Activities (and Inputs)		Current (PO_3)	Revised (PO_4)
1-4*	The 2nd Training in Japan	The second half of May 2019	Provisionally 29th July - 9th August 2019
1-5	Seminar(s) with stakeholders	March 2019	Provisionally June 2019 (after facilitator mobilization and when other forums are held by DWS, SALGA or CoGTA)
2-2*	Securing budget and fund	By the end of April 2019	No change
2-4	SOP development	By the end of July 2019	By the end of July 2019
2-7	Capacity assessment	March 2019	June 2019 (after facilitator mobilization)
3-2*	Selection of the target participating municipalities (workplaces and trainees)	By the end of February 2019	By the end of April 2019
3-3*	Selection of facilitators	By the end of February 2019	By the end of April 2019
3-4	Development of the NRW Training yard	By the end of April 2019	By the middle of June 2019
3-6	Teaching/learning materials development	By the end of April 2019	1st draft by the end of March 2019 Finalized with facilitators by the end of June 2019
3-7*	Facilitator Technical Meetings	By the end of April 2019	By the end of June 2019
3-8	Preparation of the NRW Training	By the end of April 2019	By the end of July 2019
3-9*	The NRW Training	From July 2019	From September 2019

Remarks: * Key/focal Activities

4 Preparation by the South African side toward after completion of the Project

DWS is likely to recognize the NRW Training as a pilot differing from existing model/approach, to be aligned practically with occupational qualification "Water Reticulation Practitioner".

II. Project Monitoring Sheet I & II (as attached)

Annex

Annex-1: The draft Business Plan of the NRW Training
Annex-2: Draft Proposal to LGSETA for Financial Support
Annex-3: Project Brief Note (drafted as of January 2019)

Abbreviations

CoGTA	: Department of Cooperative Governance and Traditional Affairs
DWS	: Department of Water and Sanitation
EWSETA	: Energy and Water Sector Education and Training Authority
IBTC	: Infrastructure Branch Training Centre (under NWRI)
IWS	: International Water Support (a Branch of DWS)
JCC	: Joint Coordinating Committee
JICA	: Japan International Cooperation Agency
LGSETA	: Local Government Sector Education and Training Authority
NRW	: Non-Revenue Water
NWRI	: National Water Resources Infrastructure (a Branch of DWS)
OS	: Operational Support
PDM	: Project Design Matrix
PMC	: Project Management Committee
PMU	: Programme Management Unit (a Branch of DWS)
PO	: Plan of Operations
QCTO	: Quality Council for Trades and Occupations
SALGA	: South African Local Government Association
SETA	: Sector Education and Training Authority
WBS	: Work Breakdown Structure
WRC	: Water Research Commission
WSA	: Water Services Authority
WUE	: Water Use Efficiency

	Inputs		Important Assumption
Activities for Output 1 1-1. Conduct baseline survey on skills development and NRW in municipalities. 1-2. Compile and analyze skills development and NRW in municipalities. 1-3. Review needs of skills development on NRW, existing qualifications, roles and responsibility of DWS/IBTC. 1-4. Benchmark water supply services and its skills development in Japan. 1-5. Hold a seminar and share on the results of the baseline survey and benchmark with stakeholders.	**The South African Side** **1. Project Personnel** 1) JCC Chairperson: Chief Director of Global Cooperation, DWS 2) Project Director (PD): Director of NWRI, DWS 3) Co-Project Director (PD): SALGA 4) Project Manager (PM): Centre Manager, IBTC 5) Co-Project Manager (PM): Director, Water Use Efficiency 6) Training Manager, IBTC 7) Quality Assurer, IBTC 8) Dedicated NRW Training personnel, IBTC 9) Municipal Coordinator (Technical), SALGA 10) Municipal Coordinator (HRD), SALGA 11) Facilitator 12) Candidate Facilitator 13) Other personnel mutually agreed upon as necessary	**The Japanese Side** **1. JICA Experts** 1) Chief Advisor / NRW Management 2) Deputy Chief Advisor / NRW Management 3) Training Planning / Organization Coordination 4) Water Leakage Detection 5) Water Distribution Control / Commercial Loss 6) Training Yard Design and Supervision 7) Procurement / Administrative Coordination 8) Training Management / Human Resources Development 9) Other Expert(s) if necessary	**Pre-Conditions** - DWS and SALGA agree on their collaboration and cooperation for the Project - DWS allocates/ assigns personnel in charge of NRW Skills Programme at IBTC.
Activities for Output 2 2-1. Prepare the NRW Training Business Plan. 2-2. Prepare and take procedures for funding the NRW Training. 2-3. Prepare Terms of Reference for the NRW Training. 2-4. Prepare Standard Operation Procedures (SOP) of the NRW Training. 2-5. Revise the SOP of the NRW Training through the activities of Output-3. 2-6. Revise the NRW Training Business Plan through the activities of Output-3. 2-7. Conduct capacity assessment of IBTC.			
Activities for Output 3 3-1. Design the NRW Training based on the results of Output-1. 3-2. Secure the site(s) for workplace of the NRW Training. 3-3. Secure facilitators (experienced/skilled personnel on water reticulation or equivalent) for the NRW Training from DWS/IBTC and stakeholders. 3-4. Develop training yard for the NRW Training at IBTC. 3-5. Procure equipment, instruments/tools and materials for the NRW Training. 3-6. Develop teaching/learning materials for the NRW Training with incorporating good practices from baseline survey into the materials if any. 3-7. Prepare and conduct Facilitator Technical Meetings by both facilitators and JICA Experts for the NRW Training. 3-8. Prepare for conducting the NRW Training (schedule, budget plan, applying for releasing fund, recruiting participants and etc.). 3-9. Conduct the NRW Training by facilitators with support from JICA Experts. 3-10. Monitor the NRW Training and feed the results back under training improvement cycle. 3-11. Verify effects of the NRW Training in sampled municipalities.	**2. Land, Building and Facilities** 1) Office space and facilities for JICA Experts, including water, electricity, internet connection and air conditioners if necessary 2) Land for training yard 3) Other facilities mutually agreed upon as necessary **3. Local Cost** 1) Allowance, accommodation, travelling cost and foods for project personnel, facilitators and trainees in South Africa (born by DWS, municipalities, etc.) 2) Administration and operational costs including cost for demurrage at local customs point and licensing of equipment/instruments if necessary 3) Other costs mutually agreed upon as necessary	**2. Facilities** 1) Training yard 2) Web site development and maintenance 3) Other facilities mutually agreed upon as necessary **3. Equipment, instruments, tools and materials** 1) Bulk water flow meter 2) Leak detection equipment/instruments 3) Tools for training 4) Materials such as pipe, fittings, valve, meter and etc. 5) Other equipment, instruments, tools and materials mutually agreed upon as necessary **4. Training** 1) Training in Japan 2) Training in the third country if necessary	**Issues & Countermeasures** 1 Delay of the Project (Phase-1) 2 Reschedule of the 2nd Training in Japan 3 DWS's Budget and Funding Support to the Project 4 Less Collaboration with SALGA 5 Project Management and Operation For details, refer to "2. Delay of Work Schedule and/or Problems (if any)" on the page 22 of "I. Summary".

Note: Indicators were discussed and finalized based on the baseline survey and were agreed at Joint Coordinating Committee (JCC). As an all-inclusive term, "Facilitator" in the Project may act as facilitator, trainer, mentor, coach and supervisor.

Project Monitoring Sheet I (Revision of Project Design Matrix)

Project Title: Project for Strengthening the Training Capacity of IBTC on Non-Revenue Water
Project Period: August 2017 to July 2020 (36 months)
Implementing Organization: Department of Water and Sanitation (DWS) / IBTC
Dicrect Beneficiaries: DWS, IBTC and its personnel, Facilitators selected
Indicrect Beneficiaries: Municipalities
End Beneficiaries: Customers / Consumers of water supplied by Municipalities
Project Site: Gauteng Province

Version 2
Dated 25 Jul. 2018

Monnitoring: 12 Mar. 2019

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
<Overall Goal>					
Non-Revenue Water (NRW) management skills are utilized in NRW reduction projects of participating municipalities.	1. NRW reduction projects using developed NRW management skills in participating municipalities are increased. 2. NRW ratio in participating municipalities is decreased.	1. Monitoring report of participating municipalities 2. DWS's No-Drop report and/or report from participating municipalities		None.	
Project Purpose					
NRW management skills are developed for participating municipalities through the NRW Training by IBTC.	1. No. of the NRW Training at IBTC is increased. 2. No. of water balance submission is increased. 3. No. of NRW reduction plan in participating municipalities is increased.	1. IBTC's annual training report 2&3. DWS's No-Drop report and/or report from participating municipalities	- Dramatic reduction of budget and public grants on skills development for Municipalities does not happen.	None.	
<Outputs>					
1. Skill development, status-quo and challenges of NRW, and needs in municipalities are analyzed and shared with stakeholders.	1-1. Analyzed/organized information of skills development of municipalities is submitted to DWS (list of no. of staff, attended training, mentor resources, training providers, manuals, workshops and yards, subsidies/grants, good practices, etc.) 1-2. Analyzed/organized information of NRW and needs of municipalities is submitted to DWS. 1-3. Benchmarked matrix of Japan and South Africa on water services is submitted to DWS (comparative feature strength/weakness, methodology, etc.)	1-1&2. Baseline survey report and training curriculum 1-3. Benchmark report 1-4. Seminar report and presentations		- Baseline Survey report was drafted. - Benchmark report was prepared, then submitted to the DWS management.	
2. IBTC's NRW Training capacity is improved.	2-1. Appropriate organizational structure for the NRW Training is established at IBTC. 2-2. No. of revision of Standard Operation Procedures (SOP) of the NRW Training is increased. 2-3. No. of revision of the NRW Training Business Plan is increased.	2-1. Capacity assessment report and/or organogram of IBTC 2-2. Standard Operation Procedures (SOP) of the NRW Training 2-3. The NRW Training Business Plan		None but Business Plan is to be approved.	
3. The NRW Training is conducted with training improvement cycle.	3-1. No. of Facilitator Technical Meeting is increased. 3-2. No. of NRW Training is increased. 3-3. Trainee's satisfaction with the NRW Training is increased. 3-4. No. of feedback/utilization of skills trained into water services at municipalities is increased.	3-1&2. IBTC annual report 3-3. Training evaluation questionnaire to trainees (training management/contents and individual achievement) 3-4. Survey of participating municipalities in sampled municipalities		None.	

Note:

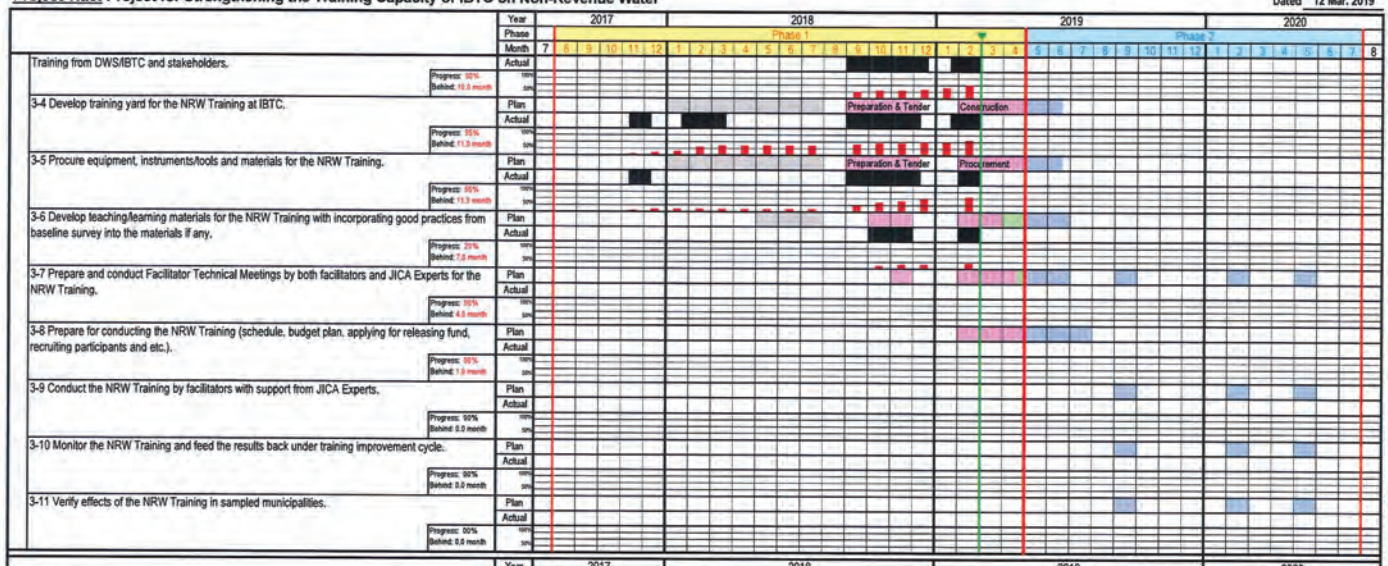
Project Monitoring Sheet II (Revision of Plan of Operation)

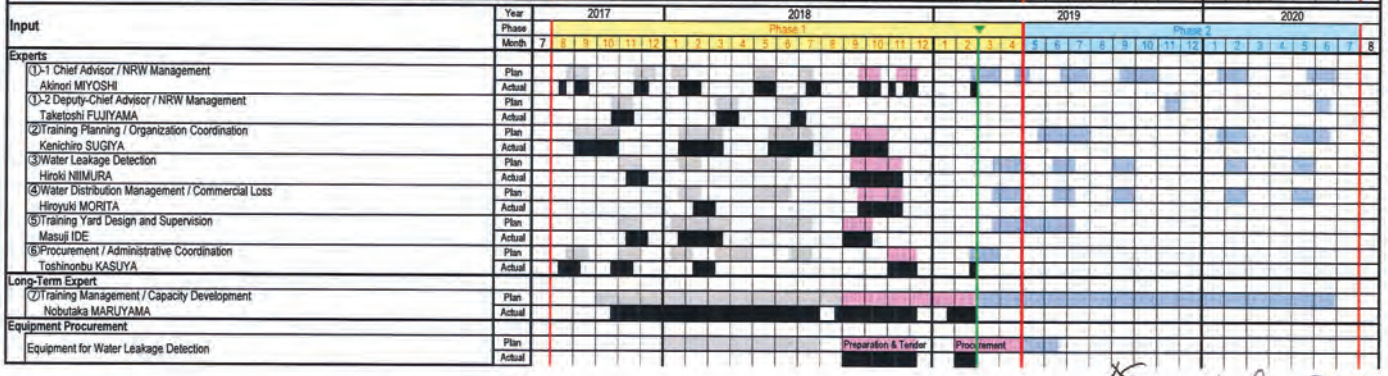
PO4

Version 4

Dated 12 Mar. 2019

Project Title: Project for Strengthening the Training Capacity of IBTC on Non-Revenue Water





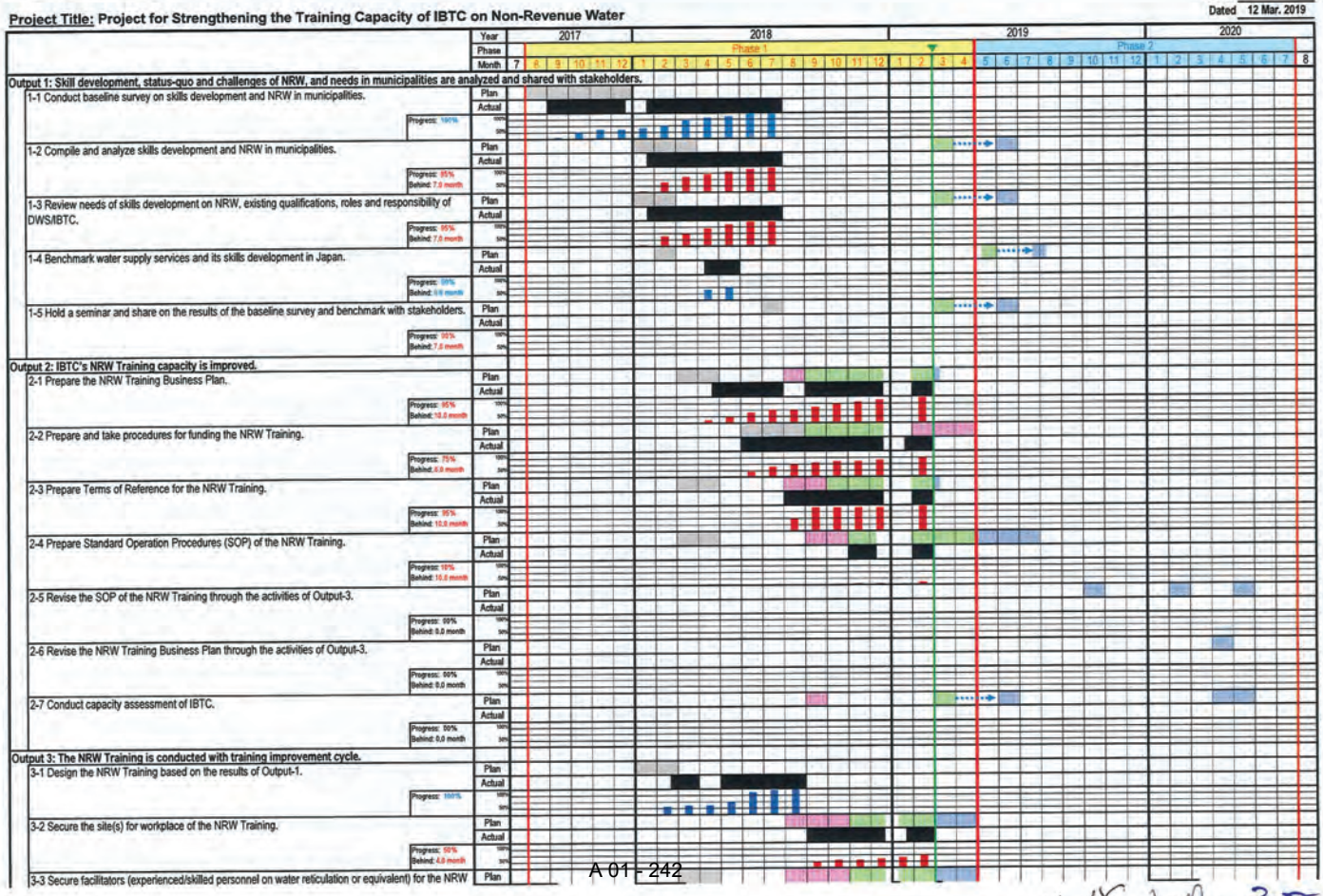
Project Monitoring Sheet II (Revision of Plan of Operation)

PO4

Version 4

Dated 12 Mar. 2019

Project Title: Project for Strengthening the Training Capacity of IBTC on Non-Revenue Water



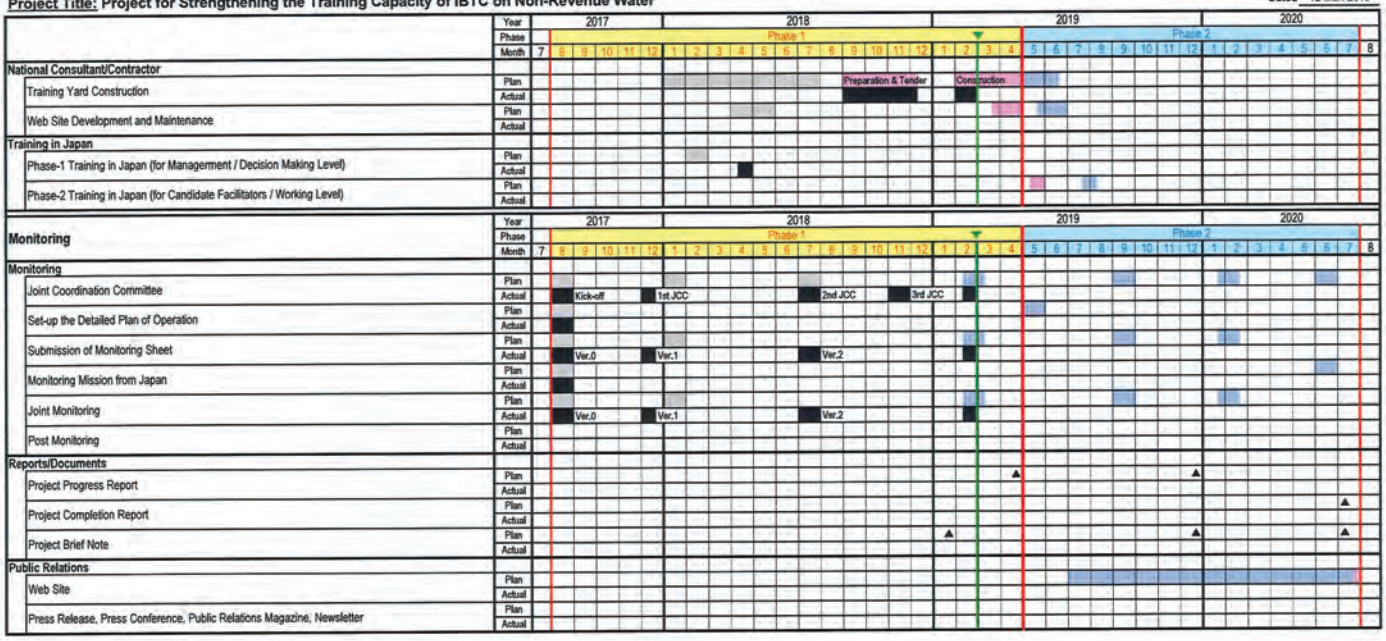
Project Monitoring Sheet II (Revision of Plan of Operation)

PO4

Version 4

Dated 12 Mar. 2019

Project Title: Project for Strengthening the Training Capacity of IBTC on Non-Revenue Water



Appendix 6

water & sanitation
Department: Water and Sanitation
REPUBLIC OF SOUTH AFRICA

SALGA
Inspiring service delivery

Japan International Cooperation Agency
JICA

PROJECT FOR STRENGTHENING THE TRAINING CAPACITY OF IBTC ON NON-REVENUE WATER

BUSINESS PLAN FOR THE NON-REVENUE WATER NATIONAL TRAINING

Version 1.0 (Draft)

March 2019

DRAFT

Abbreviation

Abbreviation	Description
CoGTA	Department of Cooperative Governance and Traditional Affairs
DMA	District-Metred Area
DWS	Department of Water and Sanitation
EWSETA	Energy and Water Sector Education and Training Authority
FETWater	Framework Programme for Research, Education, & Training in the Water Sector
IBTC	Infrastructure Branch Training Centre (DWS)
IWA	International Water Association
IWS	International Water Support (DWS)
JICA	Japan International Cooperation Agency
LGSETA	Local Government Sector Education and Training Authority
MISA	Municipal Infrastructure Support Agent
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NRW	Non-Revenue Water
NWRI	National Water Resources Infrastructure (DWS)
OS	Operational Support (DWS)
O&M	Operation and Maintenance
PFMA	Public Finance Management Act
QCTO	Quality Council for Trades and Occupations
SALGA	South African Local Government Association
WCWDM	Water Conservation and Water Demand Management
WRP	Water Reticulation Practitioner (Qualification)
WSA	Water Services Authority
WSDP	Water Services Development Plan
WSIG	Water Services Infrastructures Grant
WSP	Water Services Provider
WUE	Water Use Efficiency (DWS)

DRAFT

Table of Content

Page

Purpose of Business Plan
Management (Revision) Method
Record of Revisions
Management Representatives pf DWS

1 The NRW National Training in the DWS Mandate 1

2 Purpose of the NRW National Training 1

3 Implementing Framework of the NRW National Training 1
3-1 Proposed Business Plan 1
3-2 Roles and Responsibilities of DWS....3
3-3 Proposed Organogram....3

4 Implementation Resources Plan for the NRW National Training 4
4-1 Financial Plan 5
4-2 Personnel Plan for IBTC 6
4-3 Facilitator Securing Plan and Selection Criteria....7

5 Targets of the NRW National Training....8
5-1 Trainees....8
5-2 Selection Criteria....8

6 Institutional Arrangement with Stakeholders....9
6-1 Facilitators....9
6-2 Target Participating Municipalities (Trainees) and Workplace (Mentors) 9

7 Design Concepts, Outline of Training Curriculum and Implementation....10
7-1 Design Concepts of the NRW National Training....10
7-2 The NRW National Training Curriculum (Overview)....10
7-3 Learning Materials....11
7-4 Training Yard and Equipment, and Operation and Maintenance....11
7-5 Procurement of Goods/Consumables....11
7-6 Quality Assurance of Training Implementation....12
7-7 Monitoring and Evaluation....12
7-8 Reporting....12

7-9 Three Years Implementation Plan....12
7-10 Annual Implementation Plan (from the 4th Year)....13

8 Dissemination, Advancement and Sustainability of the NRW National Training....13
8-1 Public Relations and Publication....13
8-2 Network and Platform of Knowledge/Information Sharing....13
8-3 Facilitator Recruiting/Developing System....13
8-4 Middle- and Long-Term Monitoring and its Review....14
8-5 Collaboration with Qualification: Water Reticulation Practitioner....14

DRAFT

Purpose of Business Plan

This Business Plan outlines the implementing framework including business model, organogram, financial and personnel plans, and so forth for "The Non-Revenue Water (NRW) National Training (hereinafter "The NRW National Training")" by the Department of Water and Sanitation (DWS), particularly Infrastructure Branch Training Centre (IBTC) of National Water Resources Infrastructure (NWRI) in collaboration with other relevant units such as Water Use Efficiency (WUE), Operational Support (OS), International Water Support (IWS) and relevant stakeholders.

Management (Revision) Method

The DWS is obliged to review and upgrade the Business Plan annually or when needed based on the feedback from facilitators and trainees in the NRW National Training. After the review of the feedback, the DWS may modify and/or add the contents of the Business Plan as necessary. The revised Business Plan shall be submitted to and approved by Chief Director: Engineering Services for every revision.

Record of Revisions

This Business Plan is
The Version 1.0: Submitted on 29th November 2018

Management Representatives of DWS:

Mr. Aloious Chaminuka
National Water Resources Infrastructure (NWRI)
Tel: [redacted]
Email: [redacted]

Mr. Vincent Monene
National Water Resources Infrastructure (NWRI)
Tel: [redacted]
Email: [redacted]

Ms. Mfomadi-Rahube Rosa Rose Molotelo, Centre Manager
Infrastructure Branch Training Centre (IBTC)
Tel: [redacted]
Email: [redacted]

Mr. Xolani Hadebe
Water Use Efficiency (WUE)
Tel: [redacted]
Email: [redacted]

Ms. Mathiba Kentse
Operational Support (OS)
Tel: [redacted]
Email: [redacted]

Mr. Albert Mmbidi
International Water Support (IWS)
Tel: [redacted]
Email: [redacted]

DRAFT

1. The NRW National Training in the DWS Mandate

The NRW National Training was shaped and developed to fulfil the DWS's responsibilities: the national development, use, protection, conservation and demand management and control of water resources, and technical support to Municipalities as Water Services Authority (WSA).

2. Purpose of the NRW National Training

The main purposes of the NRW National Training are:

- To develop NRW management skills for participating Municipalities
- To make NRW management skills be utilized in NRW reduction projects of participating Municipalities.
- Eventually, to contribute NRW reduction of Municipalities nationwide

3. Implementing Framework of the NRW National Training

3-1. Proposed Business Model

The Business Model of the NRW National Training is proposed as shown in Figure 1, and the primary responsibilities of stakeholders are shown in Table 1.

Table 1: Primary Responsibilities of Stakeholders

Organisation	Primary Responsibilities
DWS	• Implementation and O&M of the NRW National Training • Training Manager, Quality Assurer, O&M staff and so on • Facilitators • O&M cost
FETWater Group	• Collaboration (information sharing on qualification: Water Reticulation Practitioner)
SALGA	• Collaboration (communication, publication) • Coordination with Municipalities
Municipality	• Supporting Facilitators • Participants (Trainees) • Workplaces with Mentors/Supervisors
Water Boards, WRC, CoGTA(MISA)	• Supporting Facilitators
LGSETA	• Funding for the NRW National Training (Local Government related)
EWSETA	• Funding for the NRW National Training (Water Sector related)

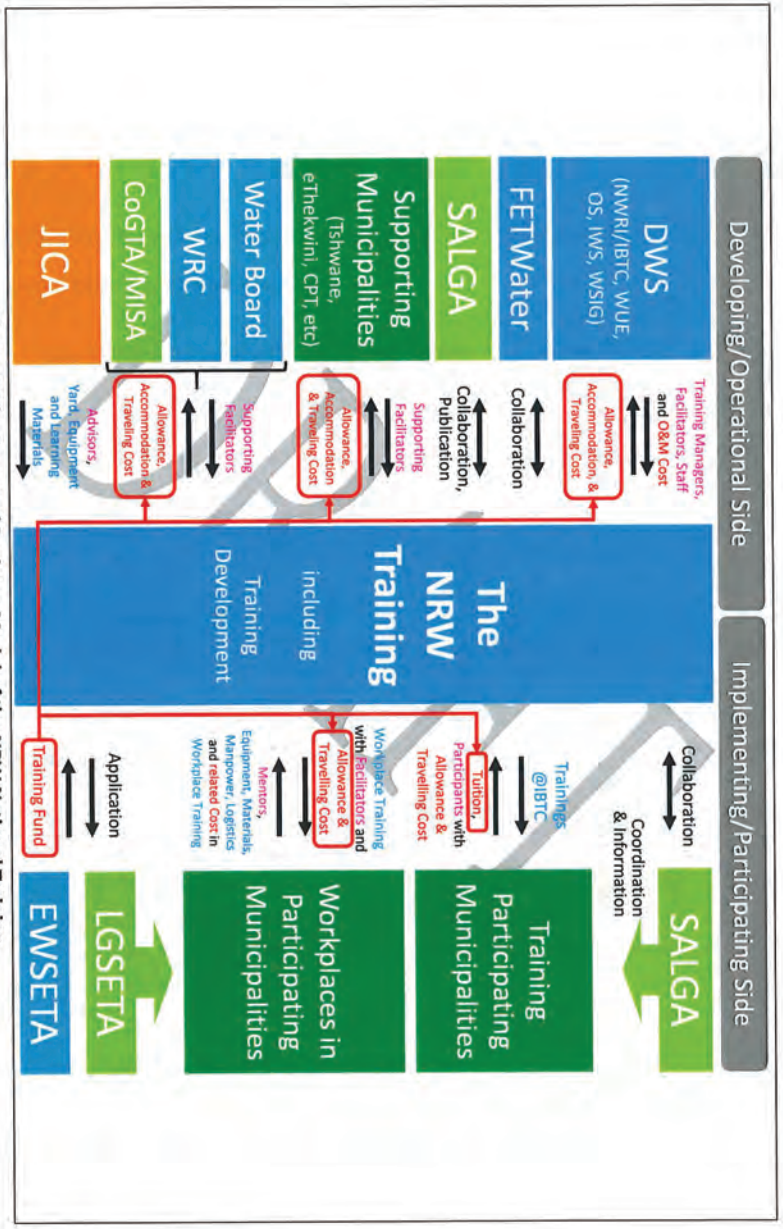


Figure 1: The Proposed Business Model of the NRW National Training

3-2. Roles and Responsibilities of DWS

The DWS takes roles and responsibilities on the implementation of the NRW National Training in cooperation with relevant municipalities described the above.

The DWS's major roles and responsibilities are:

(1) To develop, improve and manage the NRW National Training in line with the Business Plan and its revisions.

(2) To plan the NRW National Training programme, plan budget and manage the allocated budget for the training implementation and O&M.

(3) To arrange the necessary human resources such as a training manager, a quality assurer, O&M staff and so on at IBTC.

(4) To operate and maintain the class rooms, training yard and equipment properly and effectively.

(5) To collect feedbacks from facilitators and trainees in the NRW National Training and needs from the stakeholders, then evaluate and improve the NRW National Training.

(6) To liaise/coordinate internally or externally with stakeholders and ensure the implementation in terms of human resources, financial resources and information in particular by:

- Developing and securing facilitators (assessors, moderators) strategically.
- Selecting the target participating Municipalities including trainees' nomination fairly and squarely.
- Arranging the workplace training including mentors with the target participating Municipalities in line with the curriculum requirements.
- Applying for and securing funds from the relevant SETAs and so on.
- Publicizing the NRW National Training in collaboration with SALGA

3-3. Proposed Organogram

The proposed organogram to implement the NRW National Training is shown in Figure 2.

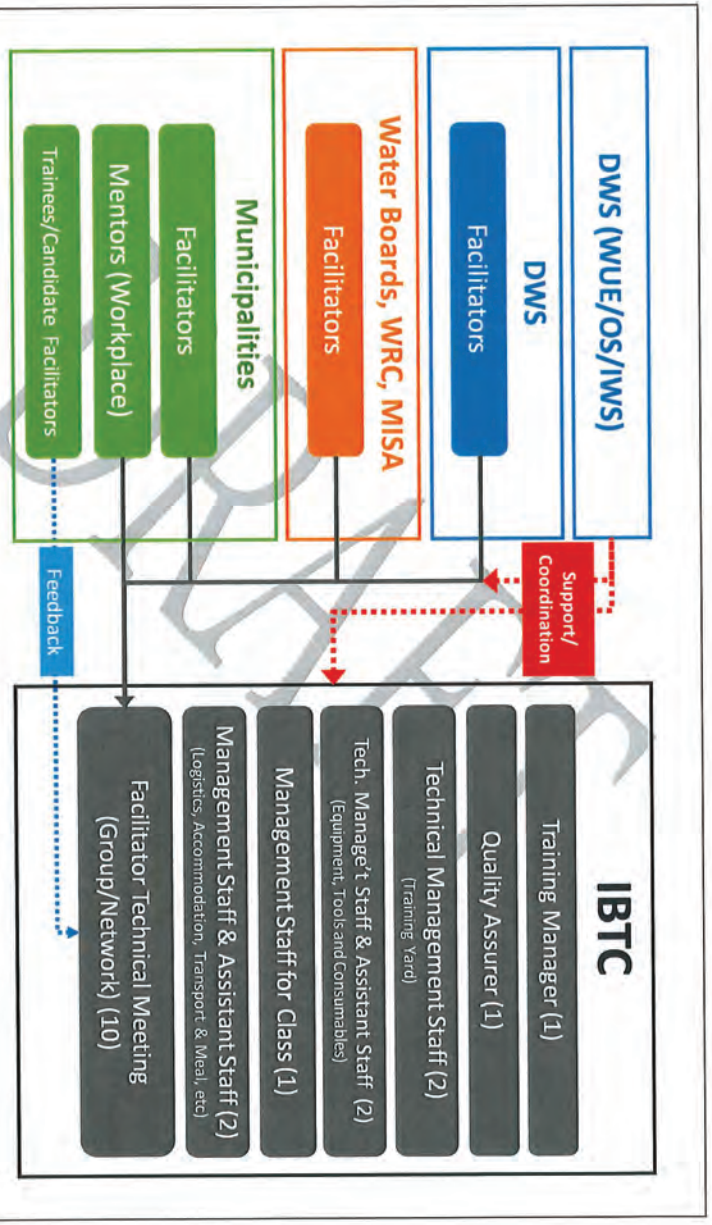


Figure 2: Proposed Organogram (Conceptual Version) to implement the NRW National Training

4. Implementation Resources Plan for the NRW National Training

4-1. Financial Plan

So that the DWS arranges/allocates the necessary budget as well as secures funding to implement the NRW National Training, the DWS shall have meetings/negotiations with the relevant sections and stakeholders such as LGSETA and EWSETA, then submit budget proposal and/or funding application without omission for the next fiscal year's programme.

Table 2 shows major expenditure items and possible financial resources.

Table 2: Expenditure Items and Financial Resources in the NRW National Training

Expenditure Items	Financial Resources
1. Training Development	
1-1. Facilitator Technical Meeting or equivalent	
1-1-1. Venue	DWS
1-1-2. Advisory Fee (if private organization)	Ditto
1-1-3. Allowance, accommodation and transport	Ditto
1-1-4. Meals & refreshment	Ditto
2. Training Implementation	
2-1. Facilitators/Assessor/Moderators	
2-1-1. Lecture Fee (if private organization)	LGESTA (EWSETA if applicable)
2-1-2. Allowance, accommodation and transport	Ditto
2-1-3. Meals & refreshment	Ditto
2-2. Trainees	
2-2-1. Tuition	LGESTA
2-2-2. Allowance, accommodation and transport	Municipalities (LGSETA if applicable)
2-2-3. Meals & refreshment	LGESTA
2-3. O&M Cost at IBTC	
2-3-1. Class-room training operation	DWS/IBTC (LGSETA if applicable)
2-3-2. Training yard	Ditto
2-3-3. Equipment	Ditto
2-3-4. Learning material preparation	Ditto
2-3-5. Consumables	Ditto
2-4. Workplace Training Cost (Facilitators)	
2-4-1. Advisory Fee (if private organization)	LGESTA
2-4-2. Allowance, accommodation and transport	Ditto
2-4-3. Meals & refreshment	Ditto
2-5. Workplace Training Cost (Mentors/Workplaces)	
2-5-1. Mentoring Fee(if private organization)	Municipalities (WSIG if applicable)
2-5-2. Equipment and Materials	Ditto
2-5-3. Manpower	Ditto

Expenditure Items	Financial Resources
2-5-4. Logistics	Ditto
2-5-5. Relevant Cost	Ditto
3. Monitoring and Evaluation	
3-1. Questionnaires and analysis	DWS/IBTC
3-2. Revision and improvement	DWS/IBTC
4. Publication and PR	
4-1. Website maintenance	DWS/IBTC, SALGA
4-2. Brochure distribution	DWS/IBTC, SALGA

4-2. Personnel Plan for IBTC

The DWS shall employ staff for IBTC required mainly for

- Implementation of the NRW National Training including operation and maintenance,
- Communication with stakeholders, and
- Facilitation of classes, logistics for facilitators and trainees.

Table 3 shows the proposed staff for the NRW National Training at IBTC in each position and its job descriptions.

Table 3: Proposed Staff for the NRW National Training at IBTC

Position (Number)		Job Description
1	Technical Management Staff for Training Yard **(Two)**	• Checking the condition of valves, a flow-meter, pressure gauge, customer meters, a storage tank, a line pump, etc. (Daily, Monthly and Yearly) • Minor repair of pipelines, fittings, valves, flow-meter, customer meters, storage tank, etc. • Cleaning of the training yard • Operation of the valves, pump and generator • Calibration of flow meters and customer meters • Estimate cost for procurement • Assistance for security guards in security monitoring • Take activities required for other yard issues
2	Technical Management Staff and Assistant Staff for Equipment, Tools and Consumables **(One each = Two)**	• Checking the condition of a generator, leak detectors, tools, etc. • Checking the connection of conductivity on equipment • Battery charging for equipment • Cleaning of the training yard • Procurement of the pipes and their fittings • Procurement of the spare parts of equipment • Management of inventory for all the equipment (Daily, Monthly and Yearly)

Position (Number)		Job Description
		• Assistance for security guards in security monitoring • Procurement of fuel for a generator
3	Management Staff for Class **(One)**	• Checking the condition of AC, lights, projector, PC, furniture, etc. • Arrangement of stationery such as white board, pens, note-pad • Printing the hand-outs and deliver them • Cleaning of the class facilities • Dealing with lost & found
4	Management Staff and Assistant Staff for Logistics, Accommodation, Transportation and Meal Service **(One each = Two)**	• Arrangement and management for accommodation, transportation and meal • Arrangement and management for cleaning of accommodation • Arrangement and management of repairs in accommodation
5	IT Engineer **(One)**	• Launch of the official website of the IBTC • O&M of the IBTC official website including periodic updating of the data and information on the site. • Arrangement of the training using PC and internet

Remarks: Position for No.4 and No.5 can be double as by existing DWS/IBTC staff.

4-3. Facilitator Securing Plan and Selection Criteria

For the NRW National Training until July 2020 at least, the DWS shall select and secure at least 10 facilitators as start-up from the DWS herself and stakeholders such as Municipalities, Water Boards, Water Research Commission (WRC) and Municipal Infrastructures Support Agent (MISA) in compliance with the following criteria.

- Experiences: More than 10 years of water supply reticulation design and O&M in a municipality (current active and retired)
- Qualification: Engineer, technologist, technician and/or artisan, supervisor, site manager
- Content/knowledge
  - Knowledge of IWA water balance
  - A wide range of knowledge on water reticulation and WCWDM
  - Operational and maintenance in municipality space
  - Bulk metering and techniques
- Core and specialized skills
  - Good interpersonal skill and communication including the ability to explain things clearly and simply to others. Facilitators in this course are not expected

to give lectures, but to guide participants through practical exercise and written materials
- Ability to teach, facilitate and demonstrate practical skills and application of principles
- Provision of mentorship
- Writing skill of reports

5. Targets of the NRW National Training

The main targets of the NRW National Training are staff of Municipalities as Water Services Authority (WSA) and/or Water Services Provider (WSP), which are defined by National Water Act and Water Services Act.

The NRW National Training shall be implemented for all Municipalities of South Africa and eventually whoever wants to participate, however, the DWS selects the target participating Municipalities according to selection criteria in the short term to establish successful implementing model with positive effects and impacts.

5-1. Trainees

The NRW National Training expects ideally Trainees from the each target participating Municipality to be organized hierarchically and cross-sectorally as a team consisting of 4 to 6 staff (1 Leader + 3 operational staff mandatorily and 1 or 2 technical director/ engineer optionally) from relevant sections such as:

- Water conservation and water demand management (WCWDM)
- Operation and maintenance (O&M), and
- Equivalent

Also, the NRW National Training targets the following staff of Municipalities, who have accumulated a certain amount of education, knowledge, experience and expertise, for example:

- Technician (or Technician-to-be)
- Superintendent/Supervisor/Foreperson/Site-Manager (or Superintendent/Supervisor/Foreperson/Site-Manager-to-be)
- Artisan Plumber (or Artisan Plumber-to-be)
- General Worker, and
- Equivalent

5-2. Selection Criteria of the Target Participating Municipalities

The selected municipalities should be willing to allow the facilitators to visit the trainees in their workplace for the period that will be specified but it will not be more three day The target participating Municipalities shall be selected in compliance with the following criteria. The Municipalities have:

- High NRW ratio and volume
- Capacity to provide safe and stable water supply by conventional piped scheme(s)
- Mapping of reticulation system (with accuracy by a yearly revision)
- Digital billing data
- Having a WSDP
- Municipality's vision/policy/plan and ongoing efforts in tackling NRW (if any)
- Affordability to allocate 4 to 6 staff during the whole training period (trainees shall NOT be changed during the period)

After the selection procedure, the DWS shall announce the result of evaluation to the relevant stakeholders and the target participating Municipalities immediately.

6. Institutional Arrangement with Stakeholders

As a formalization of institutional arrangement, the DWS and stakeholders enter into Memorandum of Understanding (MOU), Memorandum of Agreement (MOA) or equivalent official letter(s) appropriately before the implementation of the NRW National Training, in collaboration with SALGA for Municipalities..

These official documents include and/or cover the following information for both "Facilitators" and "Target Participating Municipalities (Trainees) and Workplace (Mentors)":

6-1. Facilitators

- Number of candidate facilitator(s)
- Personal information of the candidate facilitator(s)
- Level of education of facilitator(s)
- Experience of facilitator(s) in water services
- Period and schedule of the NRW National Training
- Institutional obligation (terms and conditions) between the DWS and his/her

organization
- Validity period of the MOU/MOA or equivalent official letter(s)

6-2. Target Participating Municipalities (Trainees) and Workplace (Mentors)

- Number of trainee(s) and mentor(s)
- Personal information of the trainee(s) and mentor(s)
- Level of education of trainee(s) and mentor(s)
- Experience and expertise of trainee(s) and mentor(s) in water services
- Period and schedule of the NRW National Training
- Institutional obligation (terms and conditions) between the DWS and his/her Municipality
- Validity period of the MOU/MOA or equivalent official letter(s)

7. Design Concepts, Outline of Training Curriculum and Implementation

7-1. Design Concepts of the NRW National Training

The NRW National Training has been designed based on the following observation and concepts:

Observation

- A lot of Municipalities have not conducted accurate water balance analysis with reliable data and information on NRW.
- Prior to taking NRW reduction measures effectively, a lot of Municipalities are still at the initial stage "measuring/metering" for proper analysis which leads to planning.

Concepts

- The NRW National Training focuses on water measurement, proper water balance analysis and planning in principle.
- The NRW National Training is "problem-solving-oriented" with secure positive effect and impact to participating Municipalities.
- The NRW National Training develops not only individuals (Trainees) but also organization (participating Municipalities) in tackling NRW.
- The NRW National Training curriculum is developed in consideration of occupational qualification standard model of QCTO: Theory, Practice and Workplace.

7-2. The NRW National Training Curriculum (Overview)

Training curriculum of the NRW National Training are composed of the following modules as a standard, so it should be customized flexibly based on participants' requirements and conditions.

- Orientation and General Overview
- Bulk Meter Knowledge and Technique (including Pipe Fitting)
- Customer Meter Knowledge and Technique
- Reticulation Facility Planning and O&M (Valves, Fire Hydrant, Air Valves, etc.)
- Measurement Planning
- Water Balance Analysis
- NRW Reduction Strategy Planning & Presentation
- Fundamental Knowledge of Active Leakage Detection (Equipment) and Theory *
- Fundamental Knowledge of Conditional Assessment *

  *: These items should be targeted more intensively and in detail in the next stage.

The NRW National Training is a crash course of 6 weeks totally through the following stages as a training cycle (ideally for 2 or 3 participating Municipalities):

Stage 1: Theory & Practice: 1 week at IBTC
Stage 2: Workplace: 2 weeks in participating Municipalities with Mentor(s) with support from Facilitator(s)
Stage 3: Theory & Practice: 1 week at IBTC
Stage 4: Workplace: 2 weeks in participating Municipalities with Mentor(s) with support from Facilitator(s)

7-3. Learning Materials

Leaning materials are developed in accordance to the NRW National Training curriculum.

The DWS shall review, revise the leaning materials to meet the need from stakeholders.

7-4. Training Yard and Equipment, and Operation and Maintenance

Training yard and equipment are designed and procured in accordance to the NRW National Training curriculum.

Post the initial procurement of the training yard, equipment, instruments and materials[1], the DWS is obliged to manage them and ensure good operations and maintenance by securing the necessary budget to cover all the costs. The DWS shall review, expand, upgrade and re-engineer the training yard and equipment to meet the need from stakeholders. (* Operation and maintenance manuals will be prepared.)

7-5. Procurement of Goods/Consumables

The DWS is obliged to procure goods/consumables to implement the NRW National Training smoothly by securing the necessary budget to cover all the costs. The IBTC shall also procure the required goods/consumables in line with the Public Finance Management Act (PFMA) and the DWS's procurement regulations.

7-6. Quality Assurance of Training Implementation

The DWS, particularly IBTC shall assure quality of the NRW National Training by using a check list of the implementation regularly, for example every week. The DWS/IBTC shall prepared the check list for:

- Facilitators competency
- Lecture contents
- Training environment including class rooms, training yard and workplaces
- Requests from Facilitators/Trainees to improve the NRW National Training

7-7. Monitoring and Evaluation

The impacts of the NRW National Training are monitored, for example, by:

- Training evaluation questionnaire to trainees and his/her Municipality
- Updated information and/or report(s) on NRW of the participating Municipalities
- Change(s) in Vision/Strategy/Plans, organizational structure, implementation on NRW of the participating Municipalities
- Awareness and increased usage of the Training around stakeholders
- Accountability around NRW or water loss

These information shall be collected from stakeholders, particularly the participating Municipalities by means of questionnaire, email and website.

[1] These are referred to the current DWS- JICA agreement.

Then the DWS shall share the following knowledge, skills and information identified through the monitoring.

- Technical information on NRW
- Good practices and lessons learnt on NRW reduction strategic planning, political buy-in and efforts
- Funding information and application process

7-8. Reporting

The DWS, particularly IBTC prepares and submits an annual implementation report after the completion of the NRW National Training of the year. The report shall include the results of the analysis on the feedback from facilitators and trainees.

7-9. Implementation Plan

Since the NRW National Training is a new effort of the DWS in collaboration with stakeholders and also would be implemented through trial and error in the first two-three years at least as an initial developmental stage. Therefore, the DWS prepares an implementation plan for two-three years from the commencement of the NRW National Training.

From the 3rd-4th year, the DWS prepares an annual implementation plan of the NRW National Training by the month of budgetary request (every November) for the next fiscal year. The annual implementation plan shall reflect the lessons learned from the previous year's implementation, and shall be improved accordingly.

8. Dissemination, Advancement and Sustainability of the NRW National Training

8-1. Public Relations and Publication

The DWS, particularly IBTC in collaboration with SALGA enhances the public relations of the NRW National Training by every conceivable means such as website, official gazette, magazines and other related media. The DWS's website should include Q & A bulletin board to receive questions about the NRW National Training and to feed back.

An annual implementation report shall be published to announce the NRW National Training through the DWS's website.

8-2. Network and Platform of Knowledge/Information Sharing

The DWS aims at the NRW National Training be a springboard of both the network of the nationwide facilitators/practitioners and the future platform of knowledge/information sharing. Therefore, the DWS shall utilize the Training as an opportunity of workshops or equivalent among facilitators and trainees during training periods as well as utilize website as a bulletin board.

8-3. Facilitator Recruiting/Developing System

In order to ensure sustainability in securing facilitators from medium- and long-term viewpoint, the DWS shall keep recruiting candidates from the trainees participating in the NRW National Training and stakeholders, then develop them as facilitators for the next training cycles as well as for establishing the nationwide facilitator network.

The facilitator recruiting/developing system will be discussed and established through the implementation of the NRW National Training.

8-4. Middle- and Long-Term Monitoring and its Review

The DWS monitors the NRW National Training in middle- and long-term basis to harmonise the actual needs and trend of capacity development in the water sector. The DWS takes responsibilities for the entire monitoring and its review, and shall alter/upgrade the NRW National Training if necessary.

8-5. Collaboration with Qualification: Water Reticulation Practitioner

From medium- and long-term perspective, collaboration with FETWater programme for the new accredited full qualification: Water Reticulation Practitioner (WRP) will become a contributing factor for further advancement and sustainability of the NRW National Training.

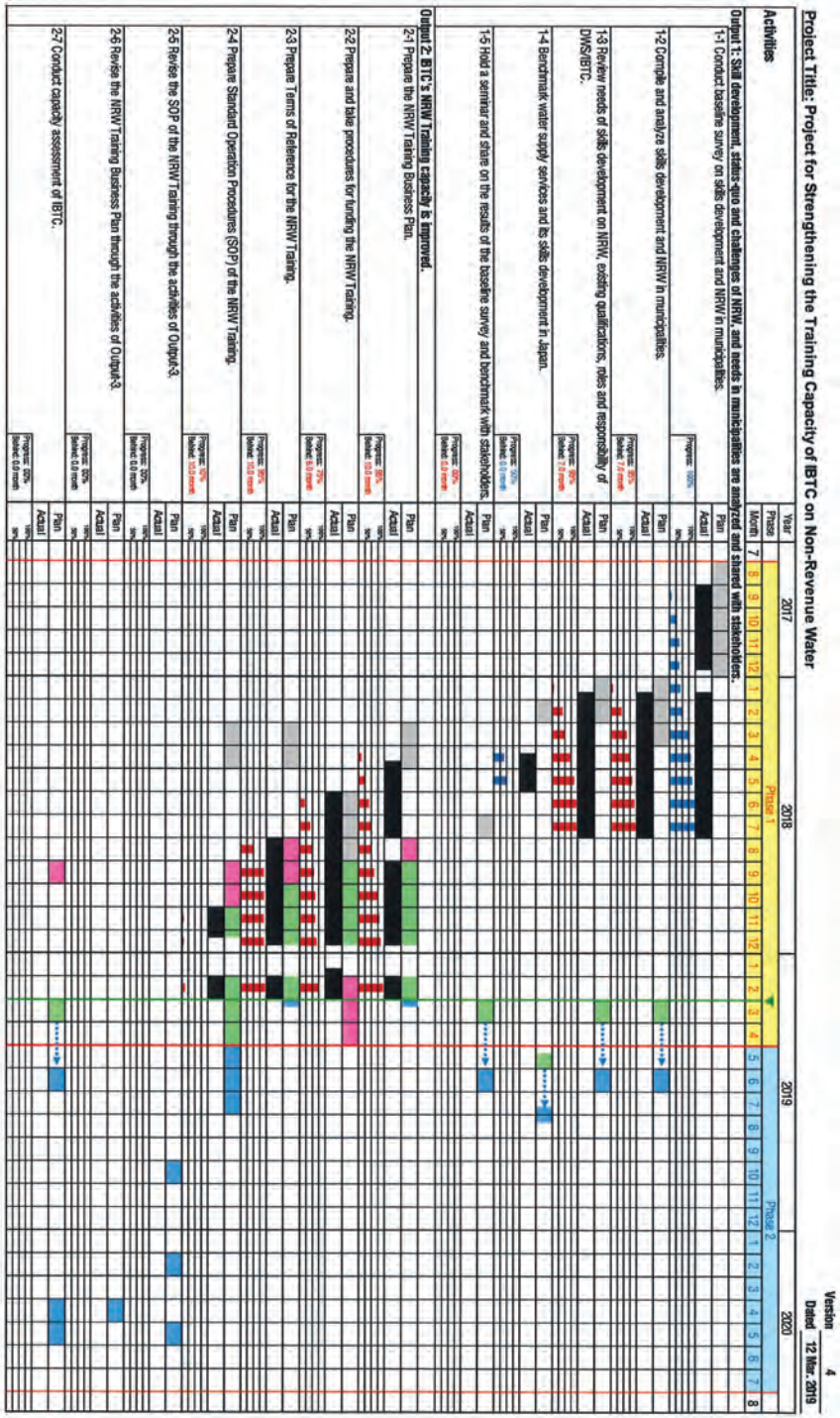
The NRW National Training aims at synergic effects as a pilot practical training methodology to WRP training in the future.

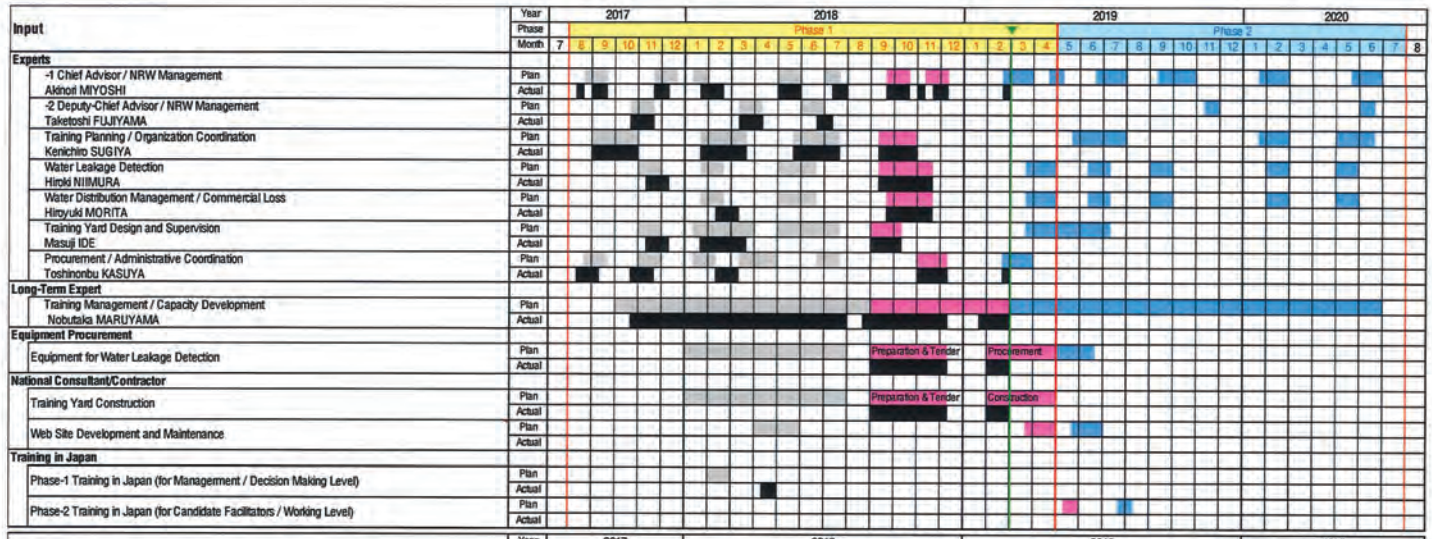
(End)

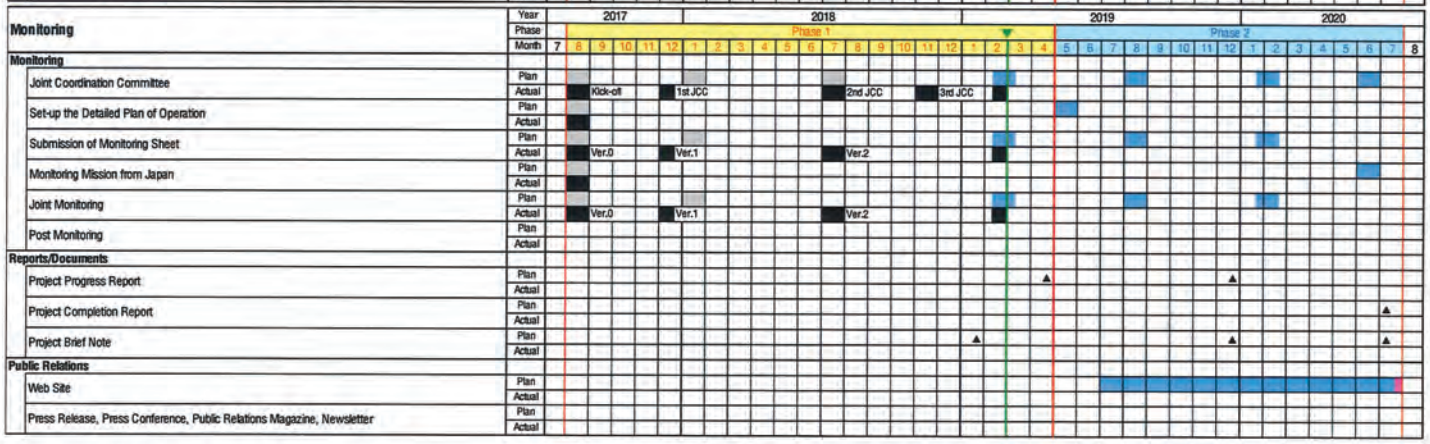
Appendix 7
PO4
Version 4
Dated 12 Mar. 2019

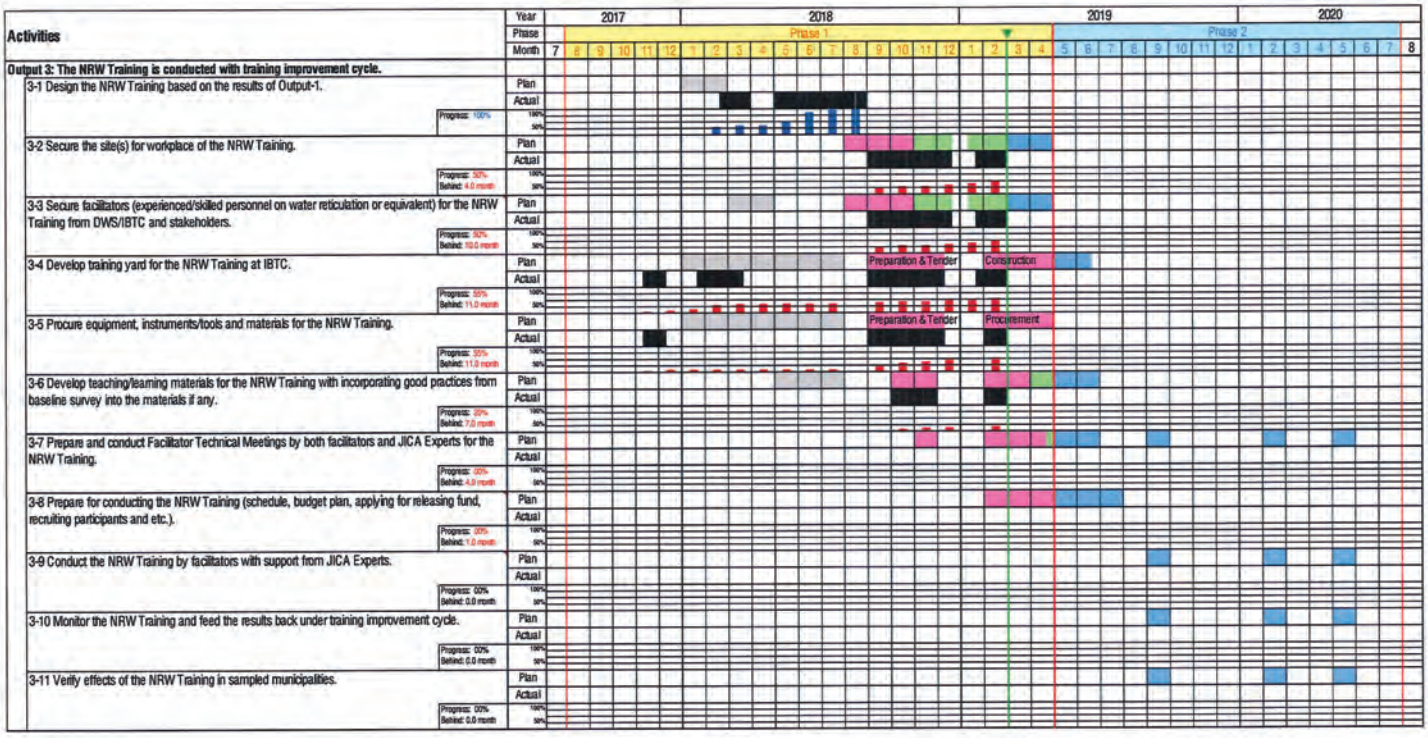
Project Monitoring Sheet II (Revision of Plan of Operation)

Project Title: Project for Strengthening the Training Capacity of IBTC on Non-Revenue Water




Input
Year
Phase
Month
2017
2018
2019
2020
Phase 1
Phase 2
Experts
-1 Chief Advisor / NRW Management
Akinori MIYOSHI
-2 Deputy-Chief Advisor / NRW Management
Taketoshi FUJIYAMA
Training Planning / Organization Coordination
Kenichiro SUGIYA
Water Leakage Detection
Hiroki NIIMURA
Water Distribution Management / Commercial Loss
Hiroyuki MORITA
Training Yard Design and Supervision
Masuji IDE
Procurement / Administrative Coordination
Toshinonbu KASUYA
Long-Term Expert
Training Management / Capacity Development
Nobutaka MARUYAMA
Equipment Procurement
Equipment for Water Leakage Detection
Preparation & Tender
Procurement
National Consultant/Contractor
Training Yard Construction
Preparation & Tender
Construction
Web Site Development and Maintenance
Training in Japan
Phase-1 Training in Japan (for Management / Decision Making Level)
Phase-2 Training in Japan (for Candidate Facilitators / Working Level)
Plan
Actual


Monitoring
Year
Phase
Month
2017
2018
2019
2020
Phase 1
Phase 2
Monitoring
Joint Coordination Committee
Kick-off
1st JCC
2nd JCC
3rd JCC
Set-up the Detailed Plan of Operation
Submission of Monitoring Sheet
Ver.0
Ver.1
Ver.2
Monitoring Mission from Japan
Joint Monitoring
Post Monitoring
Reports/Documents
Project Progress Report
Project Completion Report
Project Brief Note
Public Relations
Web Site
Press Release, Press Conference, Public Relations Magazine, Newsletter
Plan
Actual


Activities
Year
Phase
Month
2017
2018
2019
2020
Phase 1
Phase 2
Output 3: The NRW Training is conducted with training improvement cycle.
3-1 Design the NRW Training based on the results of Output-1.
3-2 Secure the site(s) for workplace of the NRW Training.
3-3 Secure facilitators (experienced/skilled personnel on water reticulation or equivalent) for the NRW Training from DWS/IBTC and stakeholders.
3-4 Develop training yard for the NRW Training at IBTC.
3-5 Procure equipment, instruments/tools and materials for the NRW Training.
3-6 Develop teaching/learning materials for the NRW Training with incorporating good practices from baseline survey into the materials if any.
3-7 Prepare and conduct Facilitator Technical Meetings by both facilitators and JICA Experts for the NRW Training.
3-8 Prepare for conducting the NRW Training (schedule, budget plan, applying for releasing fund, recruiting participants and etc.).
3-9 Conduct the NRW Training by facilitators with support from JICA Experts.
3-10 Monitor the NRW Training and feed the results back under training improvement cycle.
3-11 Verify effects of the NRW Training in sampled municipalities.
Preparation & Tender
Construction
Procurement
Plan
Actual