AREA VIII

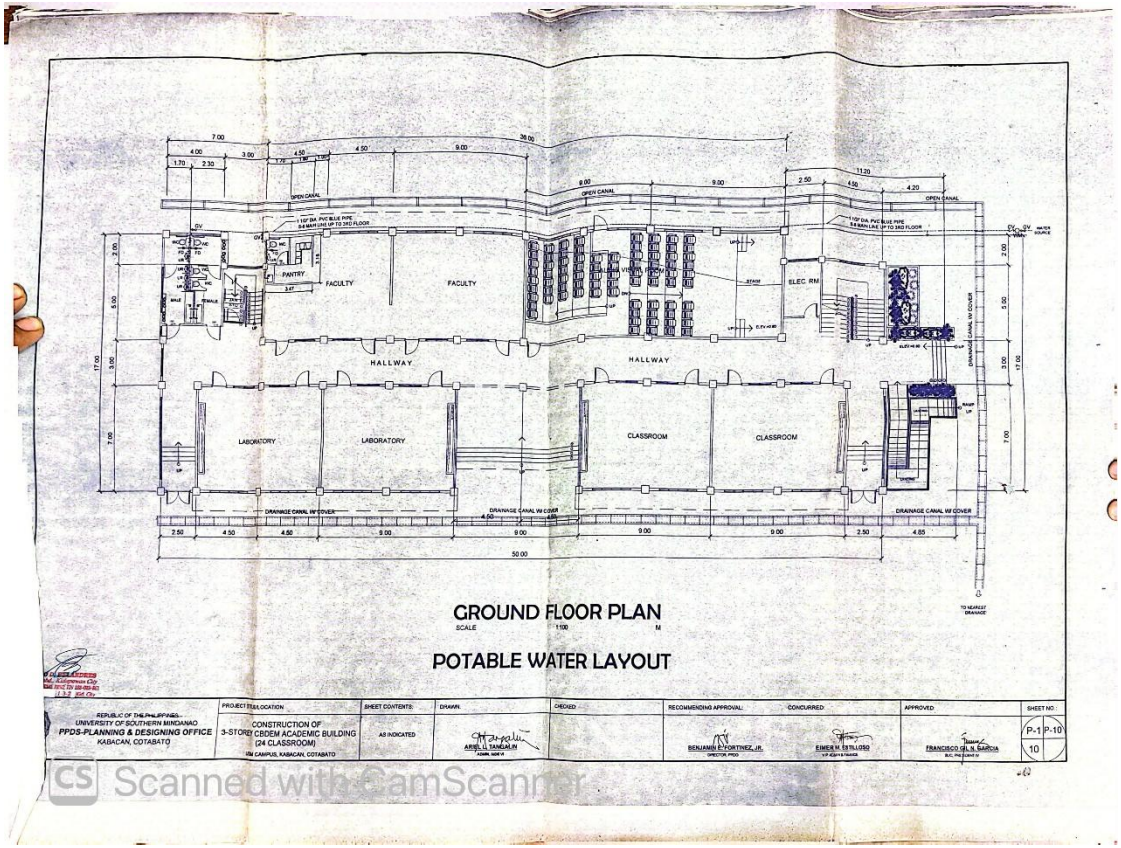
PHYSICAL PLANT AND FACILITIES

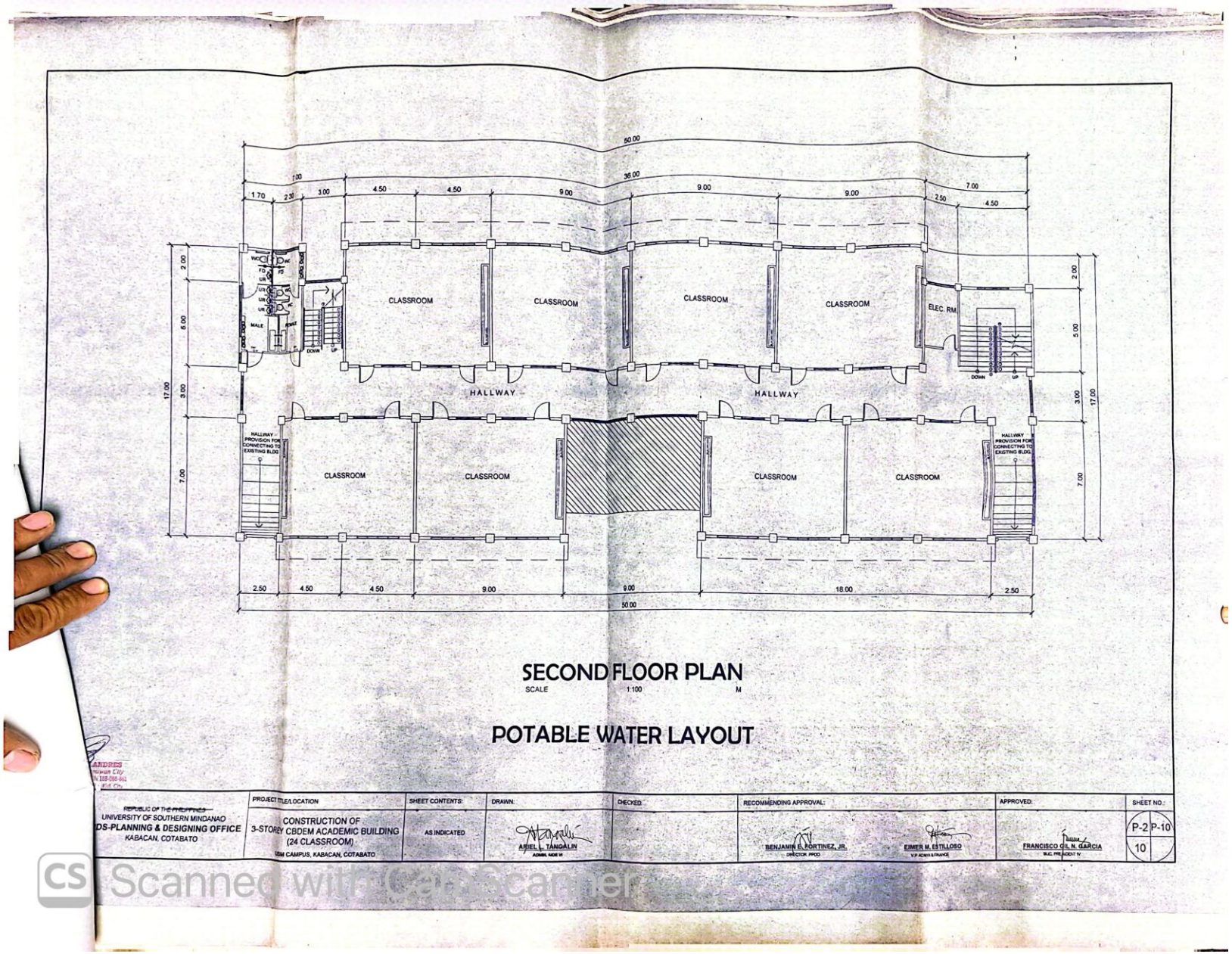
I.4. WATER FACILITIES ARE FUNCTIONAL AND WELL DISTRIBUTED IN ALL BUILDINGS

I.4. Water facilities are functional and well distributed in all buildings

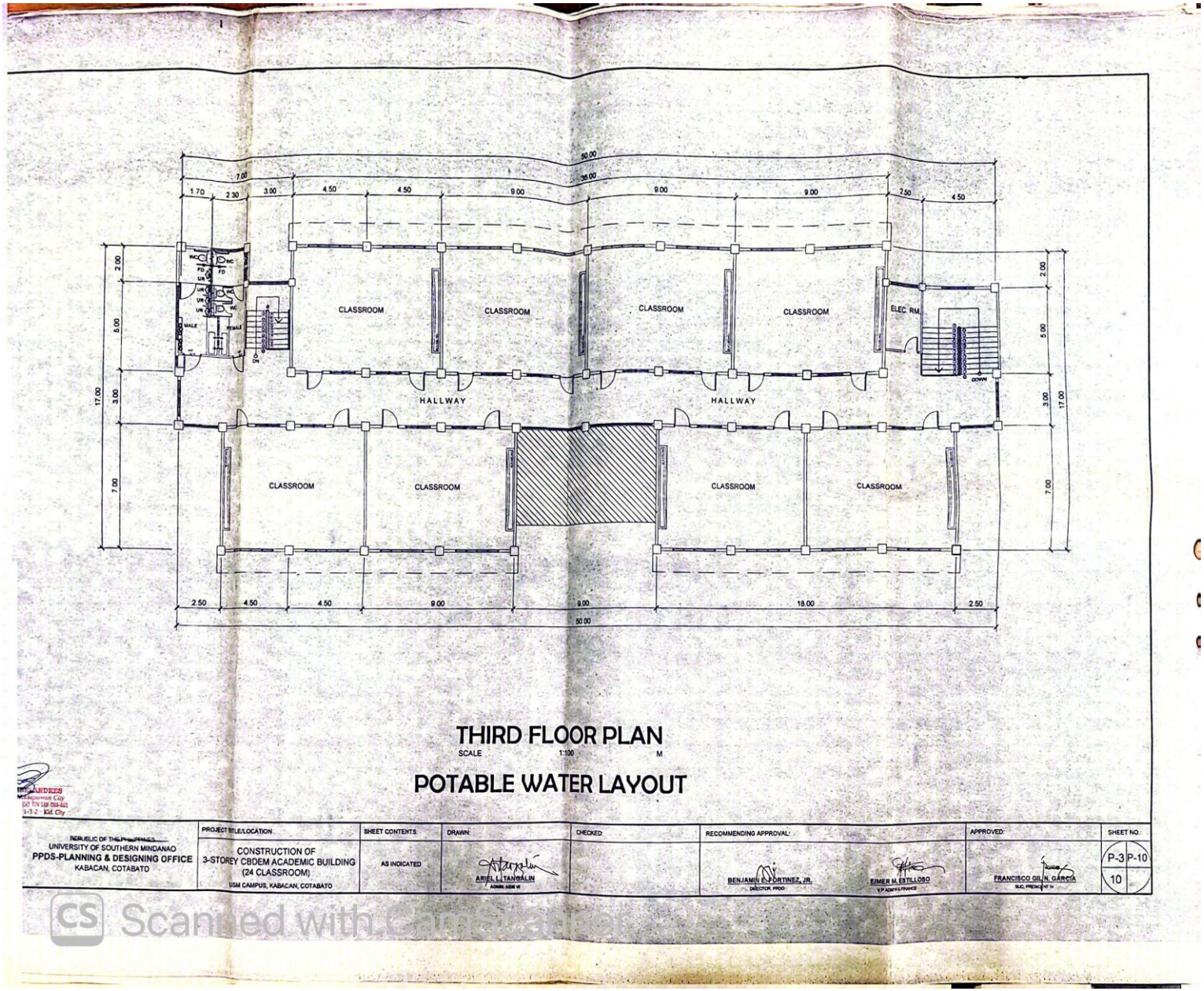
A new centralized filtration system now supplies clean, purified water throughout the campus, ensuring safe and high-quality water access for everyone. Water facilities are fully functional and thoughtfully distributed across all buildings, providing convenient access for students, staff, and visitors. This reliable system reflects the campus's commitment to health and wellness, promoting hydration and enhancing overall comfort. Regular maintenance further ensures the system's efficiency, making clean water readily available wherever it's needed.

WATER PLUMBING LAYOUT





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THIRD FLOOR PLAN

SCALE 1:100 M

POTABLE WATER LAYOUT

REPUBLIC OF THE PHILIPPINES UNIVERSITY OF SOUTHERN MINDANAO PPDS-PLANNING & DESIGNING OFFICE KABACAN, COTABATO	PROJECT TITLE/LOCATION: CONSTRUCTION OF 3-STOREY CBDEM ACADEMIC BUILDING (24 CLASSROOM) USM CAMPUS, KABACAN, COTABATO	SHEET CONTENTS: AS INDICATED	DRAWN: ARIEL L. TANGALIN	CHECKED:	RECOMMENDING APPROVAL: BENJAMIN E. FORTINEZ, JR. EIMER M. ESTILLOSO	APPROVED: FRANCISCO GIL N. GARCIA	SHEET NO.: P-3 P-10 10

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UNIVERSITY WATER PUMPING STATION



WATER WELL-SUPPLIED



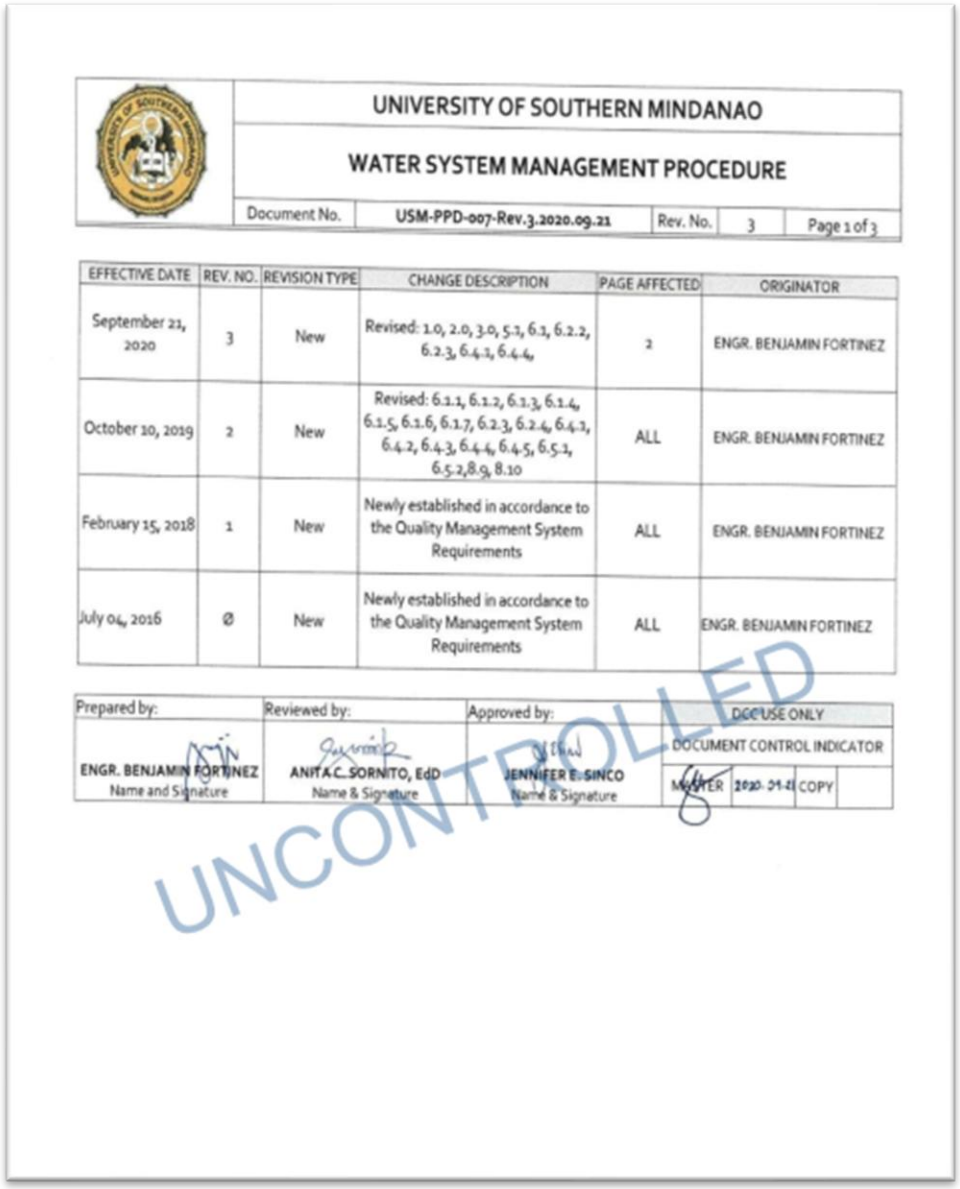


NEW CENTRALIZED FILTRATION SYSTEM SUPPLIES CLEAN WATER AL THROUGH OUT THE CAMPUS





WATER MANAGEMENT PROCEDURE



UNIVERSITY OF SOUTHERN MINDANAO

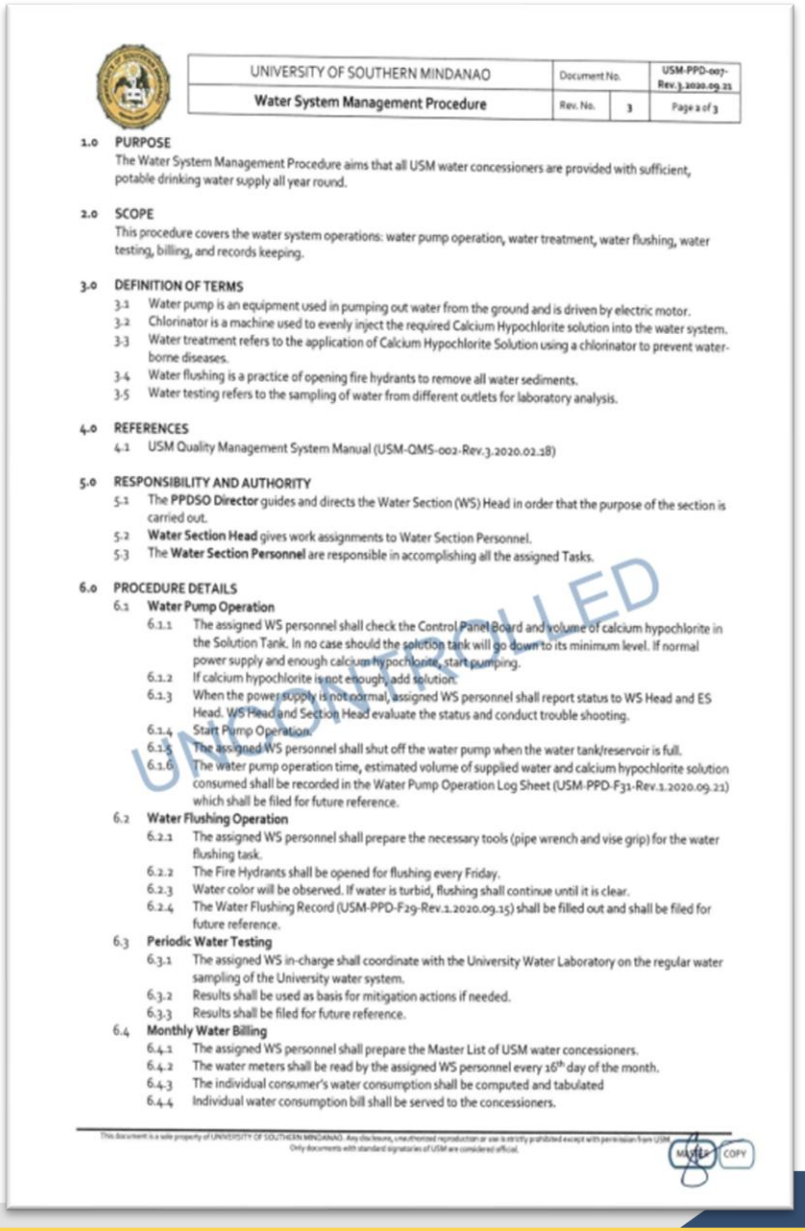
WATER SYSTEM MANAGEMENT PROCEDURE

Document No.	USM-PPD-007-Rev.3.2020.09.21	Rev. No.	3	Page 1 of 3

EFFECTIVE DATE	REV. NO.	REVISION TYPE	CHANGE DESCRIPTION	PAGE AFFECTED	ORIGINATOR
September 21, 2020	3	New	Revised: 1.0, 2.0, 3.0, 5.1, 6.1, 6.2.2, 6.2.3, 6.4.1, 6.4.4,	2	ENGR. BENJAMIN FORTINEZ
October 10, 2019	2	New	Revised: 6.1.1, 6.1.2, 6.1.3, 6.1.4, 6.1.5, 6.1.6, 6.1.7, 6.2.3, 6.2.4, 6.4.1, 6.4.2, 6.4.3, 6.4.4, 6.4.5, 6.5.1, 6.5.2,8.9, 8.10	ALL	ENGR. BENJAMIN FORTINEZ
February 15, 2018	1	New	Newly established in accordance to the Quality Management System Requirements	ALL	ENGR. BENJAMIN FORTINEZ
July 04, 2016	0	New	Newly established in accordance to the Quality Management System Requirements	ALL	ENGR. BENJAMIN FORTINEZ

Prepared by:	Reviewed by:	Approved by:	DCC USE ONLY
ENGR. BENJAMIN FORTINEZ Name and Signature	ANITA C. SORNITO, EdD Name & Signature	JENNIFER E. SINCO Name & Signature	DOCUMENT CONTROL INDICATOR MASTER 2020-09-21 COPY

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1.0 PURPOSE

The Water System Management Procedure aims that all USM water concessioners are provided with sufficient, potable drinking water supply all year round.

2.0 SCOPE

This procedure covers the water system operations: water pump operation, water treatment, water flushing, water testing, billing, and records keeping.

3.0 DEFINITION OF TERMS

3.1 Water pump is an equipment used in pumping out water from the ground and is driven by electric motor.
3.2 Chlorinator is a machine used to evenly inject the required Calcium Hypochlorite solution into the water system.
3.3 Water treatment refers to the application of Calcium Hypochlorite Solution using a chlorinator to prevent water-borne diseases.
3.4 Water flushing is a practice of opening fire hydrants to remove all water sediments.
3.5 Water testing refers to the sampling of water from different outlets for laboratory analysis.

4.0 REFERENCES

4.1 USM Quality Management System Manual (USM-QMS-002-Rev.3.2020.02.18)

5.0 RESPONSIBILITY AND AUTHORITY

5.1 The **PPDSO Director** guides and directs the Water Section (WS) Head in order that the purpose of the section is carried out.
5.2 **Water Section Head** gives work assignments to Water Section Personnel.
5.3 The **Water Section Personnel** are responsible in accomplishing all the assigned Tasks.

6.0 PROCEDURE DETAILS

6.1 **Water Pump Operation**
6.1.1 The assigned WS personnel shall check the Control Panel Board and volume of calcium hypochlorite in the Solution Tank. In no case should the solution tank will go down to its minimum level. If normal power supply and enough calcium hypochlorite, start pumping.
6.1.2 If calcium hypochlorite is not enough, add solution.
6.1.3 When the power supply is not normal, assigned WS personnel shall report status to WS Head and ES Head. WS Head and Section Head evaluate the status and conduct trouble shooting.
6.1.4 Start Pump Operation.
6.1.5 The assigned WS personnel shall shut off the water pump when the water tank/reservoir is full.
6.1.6 The water pump operation time, estimated volume of supplied water and calcium hypochlorite solution consumed shall be recorded in the Water Pump Operation Log Sheet (USM-PPD-F31-Rev.1.2020.09.21) which shall be filed for future reference.

6.2 **Water Flushing Operation**
6.2.1 The assigned WS personnel shall prepare the necessary tools (pipe wrench and vise grip) for the water flushing task.
6.2.2 The Fire Hydrants shall be opened for flushing every Friday.
6.2.3 Water color will be observed. If water is turbid, flushing shall continue until it is clear.
6.2.4 The Water Flushing Record (USM-PPD-F29-Rev.1.2020.09.15) shall be filled out and shall be filed for future reference.

6.3 **Periodic Water Testing**
6.3.1 The assigned WS in-charge shall coordinate with the University Water Laboratory on the regular water sampling of the University water system.
6.3.2 Results shall be used as basis for mitigation actions if needed.
6.3.3 Results shall be filed for future reference.

6.4 **Monthly Water Billing**
6.4.1 The assigned WS personnel shall prepare the Master List of USM water concessioners.
6.4.2 The water meters shall be read by the assigned WS personnel every 16th day of the month.
6.4.3 The individual consumer's water consumption shall be computed and tabulated
6.4.4 Individual water consumption bill shall be served to the concessioners.

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6.4.5 A copy of summary of individual water concessioners' consumption shall be submitted to the Human Resource Development and Management Office (HRDMO) and a copy shall be filed for future reference.

7.0 RECORDS RETENTION AND DISPOSAL

7.1 The Forms and Records used in this procedure shall be retained for a period of three (3) years for possible review and recall.

7.2 Disposal shall be done through shredding with the permission and authorization of the Management Representative (MR).

8.0 FORMS AND RECORDS

8.1 Customer's Feedback Form (USM-SYS-F19-Rev.3.2020.02.18)
8.2 Equipment Machine Ledger (USM-PPD-F01-Rev.2.2020.09.21)
8.3 Log Book
8.4 USM Water Concessioners' Master List
8.5 Water Bill (USM-PPD-F28-Rev.1.2020.09.15)
8.6 Water Flushing Record (USM-PPD-F29-Rev.1.2020.09.15)
8.7 Water Pump Operation Log Sheet (USM-PPD-F31-Rev.1.2020.09.21)
8.8 Equipment/Machine Ledger/Building Maintenance Ledger (USM-PPD-F01-Rev.2.2020.09.21)
8.9 Preventive Maintenance Calendar (USM-PPD-F02-Rev.2.2020.03.16)
8.10 Equipment Preventive Maintenance Checklist (USM-PPD-F44-Rev.2.2020.03.16)

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