 <p>Republic of the Philippines City of Koronadal Water District Block I, Casa Subd., Zone III, City of Koronadal, South Cotabato</p>	DOC ID No.: CKWD-QP-CMD-002	Date of Issuance: 02-03-2017
	Division/Section: Const. & Maint. Div	Revision No.: 0
TITLE:	MAINTENANCE OF CONDUIT PROCEDURE	Date of Revision: -

I. OBJECTIVE

This procedure describes the process in the maintenance of conduits to ensure accumulated silt and other unwanted debris inside the conduit eliminated and ensure condition of valves functioning well.

II. SCOPE

This procedure is applicable to the maintenance of conduits by flushing and valving exercise for valves of the distribution system.

III. DEFINITION OF TERMS

- a. CMD – refers to Construction and Maintenance Division
- b. CMD. Mngr. A – refers to the employee who supervise the division.
- c. Water Maintenance Man- refers to the employee who conducts valving and flushing to water conduits.
- d. Maintenance Man Foremen- refers to the employee who will determine the valving coverage to be done and the zone for flushing.
- e. Mainline – refers to the distribution pipeline either steel or uPVC ranging from 50 mm. to 500 mm. dia.)
- f. Flushing – refers to the act of flowing water out of the distribution system.
- g. Valve – a mechanical device that control the flow of water by opening and closing.
- h. Maintenance Order – an order form assigning for maintenance work and to be filled up with information.
- i. Valve Record Card – a record card that identify valve; location, make, model, size, and number of turns from open to close. Activities made on this valve must be reflected.
- j. Isolation Zone Map – a map that shows a certain zone/area that can be isolated from the whole distribution system.


IV. REFERENCE DOCUMENTS

- a. LWUA Operation and Maintenance Seminar Handouts

V. RESPONSIBILITY AND AUTHORITY

- a. Construction and Maintenance Division Manager shall be responsible for
 - i. Approval of the valving exercise schedule.
 - ii. Approval of the flushing schedule.
- b. Water Maintenance Foreman shall be responsible for
 - i. Preparation of the valving schedule.
 - ii. Preparation of the flushing schedule.
 - iii. Dispatching of Water Maintenance Man to the flushing and valving exercise.
 - iv. Recording of updates to the Valve Record Card.
 - v. Making a summary of the flushing conducted.

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- c. Water Maintenance Man shall be responsible for
 - i. Conduct of valving exercise.
 - ii. Conduct of flushing.
 - iii. Report to the Water Maintenance Foreman of findings in the conduct of valving exercise and flushing.

VI. PROCEDURE DETAILS

a. Valving Exercises

Process Flow	In-charge	Process Description	Records
Start			
↓			
Preparation of Valving Exercise Schedule	Water Maintenance Foreman	Shall prepare valving exercise schedule to be approved by Division Mngr. Note: Valve should be exercised twice a year.	Valve Record Card
↓			
Dispatch Valving Exercise Order	Water Maintenance Foreman	Shall dispatch/assign the valving exercise work to the Water Maintenance Man.	Maintenance Order
↓			
Conduct Valving Exercise	Water Maintenance Man	Shall inspect the valve, clean valve box cover and perform the valving exercise. Shall fully close or open the valve to determine number of turns. Shall not leave valve fully open or close but back 1½ turns. Shall report to Water Maintenance Foreman for status of valve.	Maintenance Order and Valve Record Card
↓			
End			

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b. Flushing of Mainline

Process Flow	In-charge	Process Description	Records
Start			
Preparation of Flushing Schedule	Water Maintenance Foreman	<p>Shall prepare flushing of mainline schedule to be approved by Division Mngr. Shall ensure that flushing is done in a specified zone for better result. Shall schedule that flushing is done at the lowest hour demand wherein pressure of the mainline is at the highest.</p> <p><i>Note: Flushing shall be conducted every month to dispose accumulated silt and stagnant water.</i></p>	Isolation Zone Map and Valve Record Card
Dispatch Flushing Order	Water Maintenance Foreman	Shall dispatch/assign the flushing work to the Water Maintenance Man.	Maintenance Order
Conduct Flushing	Water Maintenance Man	<p>Shall conduct dead end and strategic hydrant flushing. Shall report to the Water Maintenance Foreman the duration of the flushing period.</p>	Maintenance Order
End			

6.3 Reports

Reports	Frequency	Responsible
Maintenance Order	Monthly	Water Maintenance Foreman and Water Maintenance Man
Monthly Maintenance Report	Monthly	Water Maintenance Foreman

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VII. **PERFORMANCE INDICATORS**

After flushing have the zone subject to a chlorine and bacte-test for comparison and assurance. Valving will determine that valve is functioning well.

VIII. **ATTACHMENTS AND FORMS**

- i. Maintenance Order
- ii. Monthly Maintenance Report
- iii. Isolation Zone Map
- iv. Valve Record Card
- v. Flushing Logbook

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