



# TUBOD-BAROY WATER DISTRICT

## ANNUAL NARRATIVE ACCOMPLISHMENT REPORT

C.Y 2019

### Tubod Pumping Station and Reservoirs

#### **Background**

- The Buctuan Pumping Station was constructed in 1995 at Limot Village, Poblacion, TubodLanao del Norte. It has a total depth of 77 meters line with 250 mm straight casing/screens and equipped with a 30 Hp submersible Motor and Pump. It has a black iron riser pipe with 100 mm in diameter. The well has a rated capacity of 21 LPS. The well operates 10-14 hours a day.
- The Buhawe Pumping Station was constructed last 2014 at Suan Village, Poblacion, Tubod, Lanao del Norte. It has a total depth of 77 meters line with 250 mm straight casing/screens and equipped with a 20 Hp submersible Motor and Pump. It has a black iron riser pipe with 100 mm in diameter. The well has a rated capacity of 15 LPS and it operates 24 hours a day.
- The Kilat Pumping Station was constructed last 2008 at PHQ, Pigcarangan, TubodLanao del Norte. It is a shallow well type with a total depth of 7 meters and 36 inches diameter. It is equipped with a 5 Hp submersible Motor and Pump with riser pipes of 50 mm in diameter. The pumping station has a rated capacity of 3.5 LPS. The well operates 24 hours a day.
- The storage facilities of Tubod are made up of reinforced concrete ground reservoir and with a capacity of 150 cubic meters each. The tank is cylindrical type and its overflow elevation is about 5 meters above ground level. The 2 reservoirs are still operational and in good condition and it operates on a fill-and-draw mode.

### Significant Achievements

#### **Service Connection**

- The TBWD is presently categorized as “Category D” Water District serving a total population of 13,570 as of December 31, 2019 in the Municipality of Tubod with 2,714 total service connections from 2,407 connections last year 2018.

### **SMS Monitoring System**

○Completed last June 2019, to prevent loss of production, we equipped each pump station with a SMS Monitoring Alarm which notifies maintenance personnel via a text message if the motor stopped working. Due to this technology, pump operators need not be guarding the stations 24/7 thus allowing us to use the services of the pump operators in other maintenance operation.



### **Sure-loc PVC Riser Pipe**

○This year 2019, we have started replacing the traditional solid steel riser pipes with lightweight types of material riser pipe that has the same durability as those black iron pipes (B.I. pipes) but is more convenient with regards to its user/installer. The advantage with PVC riser pipes is that it has an easier and faster installation method than those of heavy B.I. pipes thus lessening the maintenance hours and minimizing production losses.



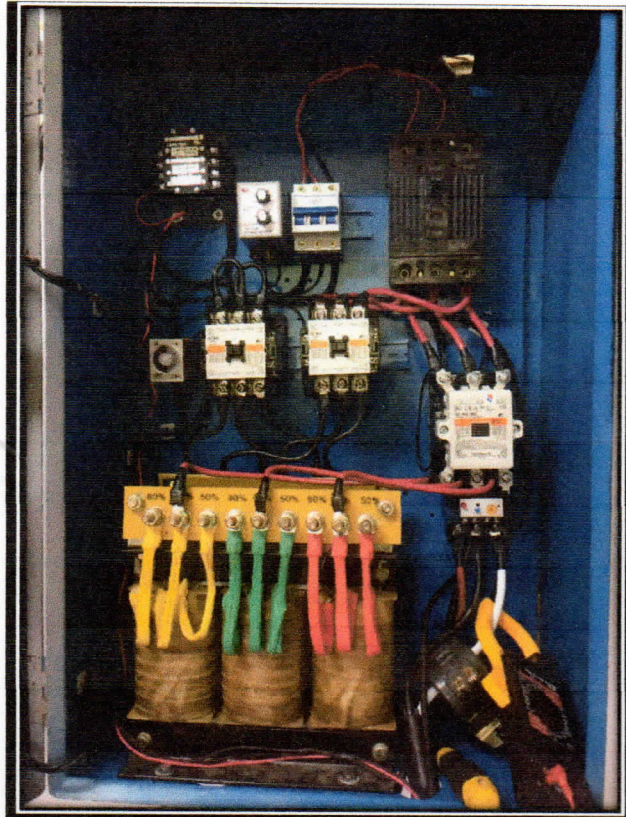
### Floater Valve Switch

o The main purpose of this mechanism is to avoid the reservoir from overflowing. Through the years we have encountered multiple complaints around the vicinity of the reservoir which are due to the erosion of soil and road damages. Also, this mechanism helps to avoid unaccounted water production that may lead to revenue loss and high electricity bill. Completed last January 2019.



### **Auto-transformer 30 hp Panel Board**

○Last June 2019, due to fluctuation of power supply, one of our water sources was severely affected. Our submersible pump and motor was damaged thus affecting our water supply all around Tubod. This damage was the long term effect of power fluctuation and in order to avoid this in the near future, we have upgraded our power management system in the pump station and installed the Auto-transformer mechanism that allows the motor to gain its phase while starting up. Auto-transformer also known as voltage regulator mainly safeguards the motor from sudden drops of voltage which causes overheating.



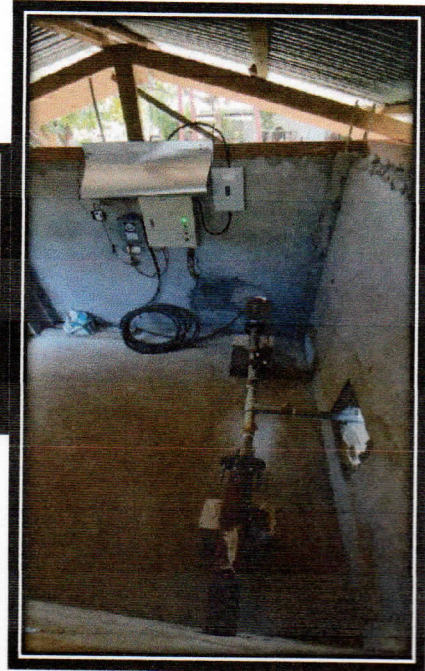
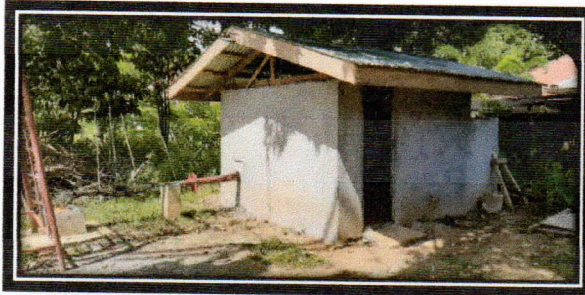
### **Disinfection and Treatment**

○This year 2019 we started using a more effective kind of chlorine which not only disinfects but also eliminates foul odor on the water. With this new type of chlorine comes also with a new type of chlorinator which is so reliable and more durable than the recent one.



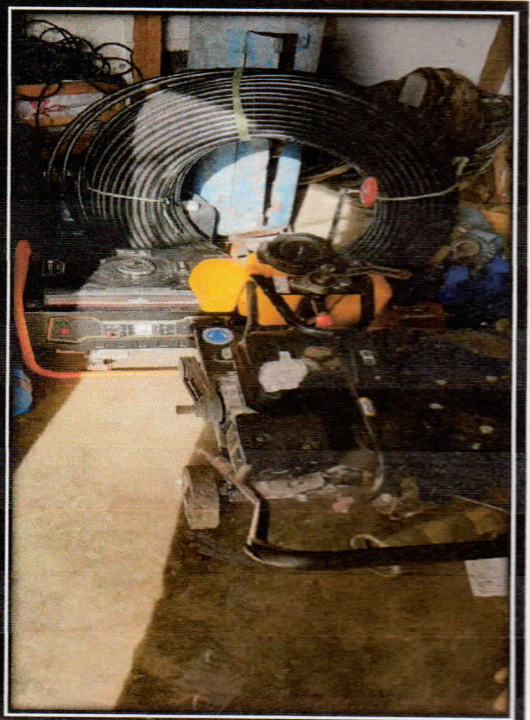
### **Tubod New Pumping Station**

○In December 2019, we have started the operation of our new pumping station located at Purok 6, TCES, Tubod, Lanao del Norte near TBCC. It can produce up to 25 Liters per Second of safe drinking water which can cater approximately to 2,500 households. One of the main purposes of this expansion is to supply the ongoing and upcoming commercial establishment in Tubod like the Gaisano Mall. This pumping station also helps improve the supply in high elevated areas like in San Antonio, Tubod.



#### **Excavation/Drill Equipment and Generator**

oWe have also purchased our own power tools, drill equipment, and generator. A unit of Jackhammer, Angle Grinder, Concrete Road Cutter, Portable Welding Machine and Generator. These tools and equipment are very useful for the maintenance and repair of leaks which can fast-track our work resulting in early return of normal supply.



### **Water Meter Clustering**

○This year we have clustered mostly the water meters in GK Aloha, Lamac, Look, and Pigcarangan and its neighboring areas. This will ease our problem in pilferages and delinquent consumers thus also improving water supply which is the main purpose of clustering.

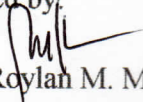


### **Service Line Expansion**

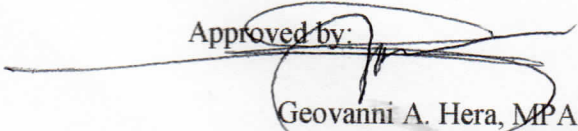
○In areas like Aloha and Pigcarangan we have replaced all of their service lines from 1 ½” inches of pipe to 2” inches. This is part of our expansion project to further eliminate low pressure supply on far areas of Tubod.



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