Assessment number 4.

Admission number----

Institution: Department WASH

Course title: Post Graduate Diploma

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Assignment

1. List and briefly describe the measures by which the success or otherwise of a public–private partnership providing water supply services can be assessed.

**Answers:**

* **Optimise risk transfer- Public-private partnership cooperatives initiatives share all types of risks encountered and have contingency plans for immediately sorting outs all challenges faced.**
* **Cooperative investment of resources, the PPP are parts who are jointly risk takers, share paybacks and authority for all parties.**
* **Proper financial records and events the public-private partnerships group commensurate the achievements of the pre-specified services.**
* **Access – the PPP has allowed a room for providing good quality and quantity water then the public managed water supplies thus make them to be successful on operation and provision.**
* **operational efficiency – The PPP has high standard of operation and maintenance of for delivery enough water to the community for breaking the thirsty of water supplies, compering to Public managed system they immediately repair any damaged utility, taking care of water quality, treatment and payment collection.**
* **Cost recovery- Through the public-private partnership the market price of the water is subsidised and affordable to the fetching communities thus is approach is much successful for getting enough customers/Beneficiaries.**

1. Give six possible causes of water emergencies, three dues to natural causes and three dues to humans.

**Answers:**

Natural causes.

* **Drought.**
* **Flood.**
* **Earthquake.**
* **Diseases outbreaks.**

Man-made (Humans)

* **Wars/conflicts.**
* **External and Internal displacement.**
* **Deliberate poisoning.**

b. What are the options for safe water supply during a water emergency.

**Answers:**

* **Use of water tankers for water trucking.**
* **Provision of plastic plodders for water storage at the distribution points.**
* **Provision of water treatment at the source level or at household level.**
* **Educating the communities through sensitizations about water maintenance, operations and treatment.**
* **Establishment of management committees of the sources/collection points.**
* **Provision of water collection and storage containers**.

3. You are about to set off to conduct a sanitary inspection of an abstraction point at a river.

1. What would you take with you?

**Answers:**

* **Questionnaire checklist for inspection.**

1. Explain four things you will be looking for during your inspection.

**Answers:**

* **Animal farm- this can easily pollute the water source (river) through the pesticides, ducks and swimming thus can lead outbreak of diseases.**
* **Crop production around the river should be observed during inspections why because this can take part the contamination of the sources through the crop treatments like the fertilizers and pesticides.**
* **Observe if the intake is fenced or unfenced by knowing if the pollutants can easily go through or not.**
* **Observe the type of water the river is carry if its mudflow or clean for immediate consumption.**

1. Explain briefly why a Water Safety Plan is necessary.

**Answer:**

* **Its necessary because, water safety plan used for the removal and Elimination of water contaminants elements during treatments.**
* **Water safety plan is very important and instrumental of managing any water pollutant materials at the water sources.**
* **Water safety plan is essential for preventing water contaminations after treatments before it reaches to the consumers specially during distributions.**
* **Water safety plan is necessary why because it determines the amount or measurement of chemicals for treating M3 .**
* **The water safety plan initiates pre-planning of any water related facility damages either be Skilled technician, Equipment’s and cost thus minimize risks for losing water by the consumers.**
* **Water safety plan imposes to carry our risk assessments and way forward.**
* **Its necessary to describe the water supply system and sits the proper procedures of water functions through good skilled management process.**
* **Its necessary in water, management process thus through the safety plan water testing is conducted.**
* **Water safety plan ensures documentations are well managed and stored for future references.**

1. Distinguish between the two types of maintenance at a water utility and give reasons why one of them is Better

* The two types of Maintenance at a water utility are preventive Maintenance and Breakdown maintenance.
* Preventive maintenance is an actual follow up, Monitoring and regular check ups to avoid huge loss and damages that may inquire a lot of money to repair so through preventive measures this will decrease the cost of maintenance thus improves the sustainability of the project and its viewed as the best and better option of running the utility in smooth manner, as said prevention is better than cure.
* Breakdown maintenance is the second option of improving and sustaining the utility running actively but needs a lot of money to invest and repairing as will hinders the smooth provision or supplying of water to the consumers thus its not encouraged to think of.