


Addis Ababa Water and Sewerage Authority

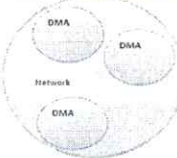
Vitens Evides
international

DMA

DMA




District Metered Area



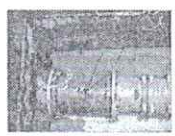

By dividing complex Networks in smaller areas, DMA's 200 – 500 house connections, we can:

- > Monitor and prioritise leak reduction
- > Prioritise commercial leak reduction
- > Manage pressure to customer requirements
- > Prioritise areas for capital investments
- > Assigning ownership DMAs to small teams for the operation and maintenance



DMA

- An Isolated Area of 200-500 service connections equipped with a District Meter (DM) is in fact a DMA, a district metered area.





DMA

A District Metered Area has a DM (District Meter)

With a district meter (DM) in a DMA:


- > You can check the NRW
- > You can check the performance of the caretaker



DMA

A District Metered Area has a DM (District Meter)


The district metered area must be isolated from the rest of the distribution system through blind flanges, closed valves or, if necessary, by a second District Meter



District Meter Areas

Design criteria


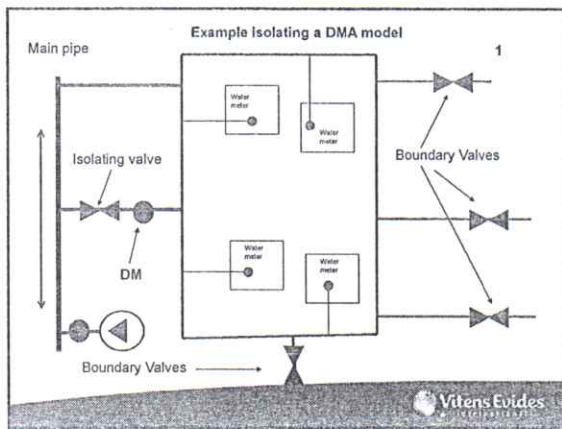
- > Existing network
- > Pressure
- > 24/7 Flow
- > Number of connections/large users
- > Cost for isolation
- > Natural boundaries



Benefits of a DMA

Making DMA's


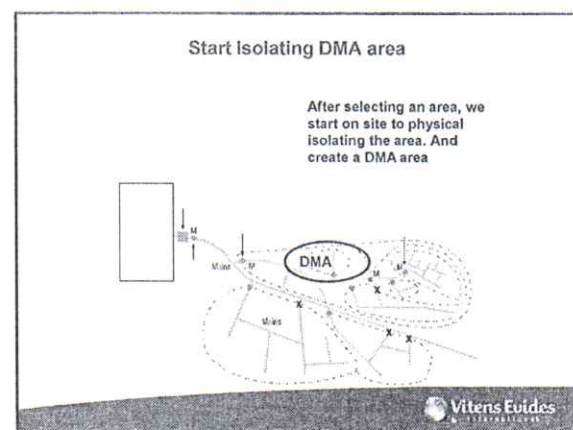
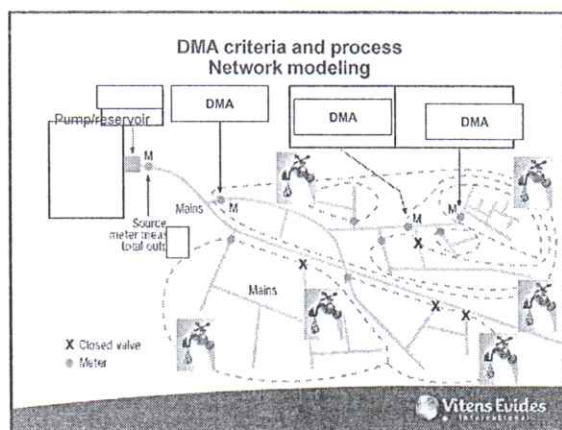
- > Helps to manage pressure.
- > Improve water quality.
- > Enables continuous water supply.

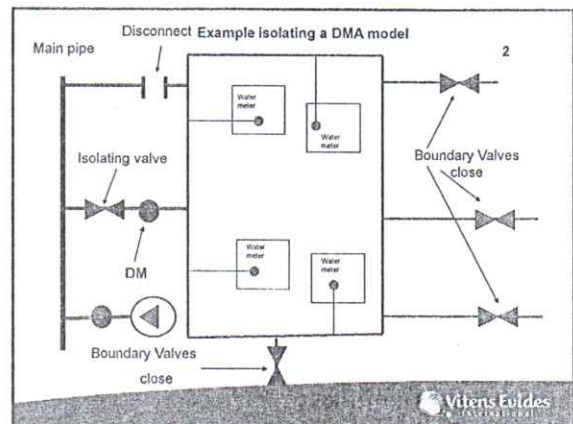
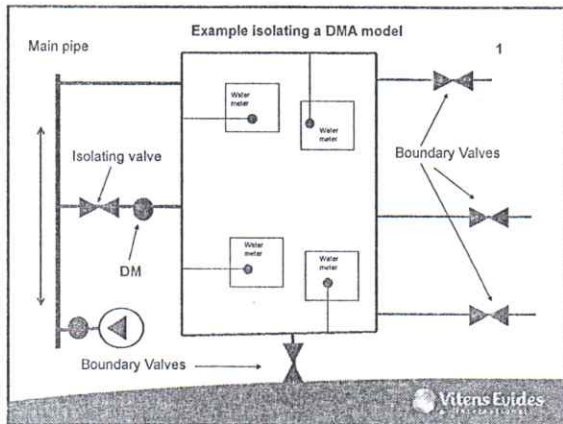



District Meter Areas

To establish a DMA

- Network Map GIS must be up to date
- Design area with 250 – 500 Service Connections
- Calculate the incoming and outgoing flow and pressure
- Establish DMA
 - Installation incoming and outgoing Water meter
 - Close or install Boundary Gate Valves
- Check pressure
- Check isolation (zero pressure test)


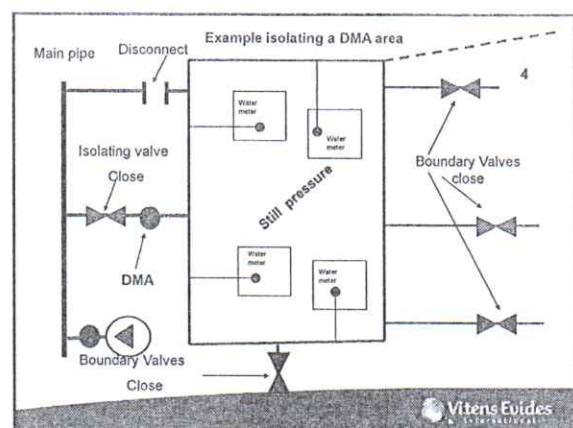
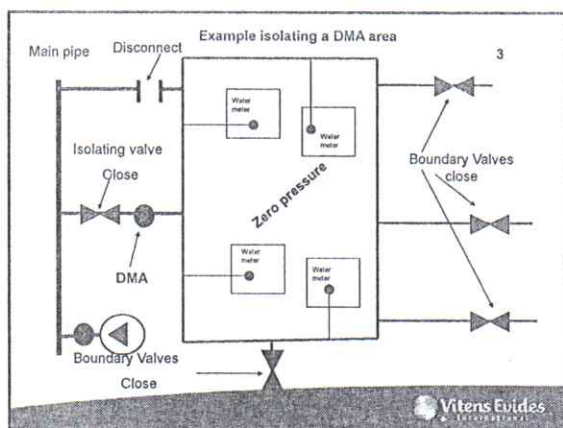


Zero pressure test

DMA criteria and proces

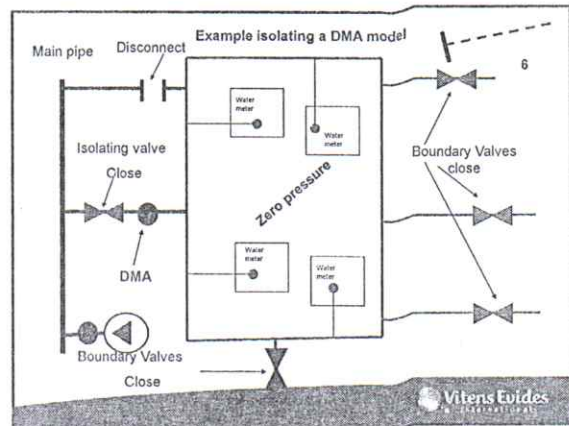
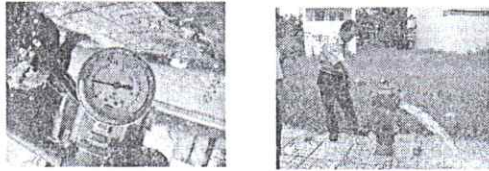
Now we have a DMA we want to ensure that the DMA is really isolated. There for we do a Isolation test (zero pressure test)

1. Close all metered inlets. (Incase we have metered outlets!!!!)
2. Check whether the water pressure within the DMA drops to zero, since no water should now be able to enter the area.

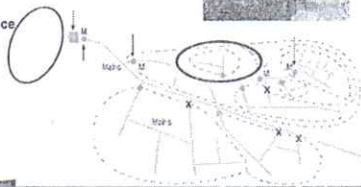
DMA criteria and process

If the pressure does not drop to zero, then it is likely that another pipe is allowing water into the area and therefore needs to be addressed.



A DMA is created

- No we have one DMA area that is totally isolated and ready to managed
- Pump production
- Inflow
- Consumption demand
- Pressure
- Water shortest
- Operation and maintenance
- Non Revenue water
- Etc



Questions



For your attention