

FIG Working Week 2024

19-24 May

Accra, Ghana

Your World, Our World:
Resilient Environment
and Sustainable
Resource Management
for All

Presented at the FIG Working Week 2024,
19-24 May 2024 in Accra, Ghana

LIVE WATER DEMAND MANAGEMENT USING GEOSPATIAL DASHBOARD & GNSS SMART PHONES





FIG Working Week 2024

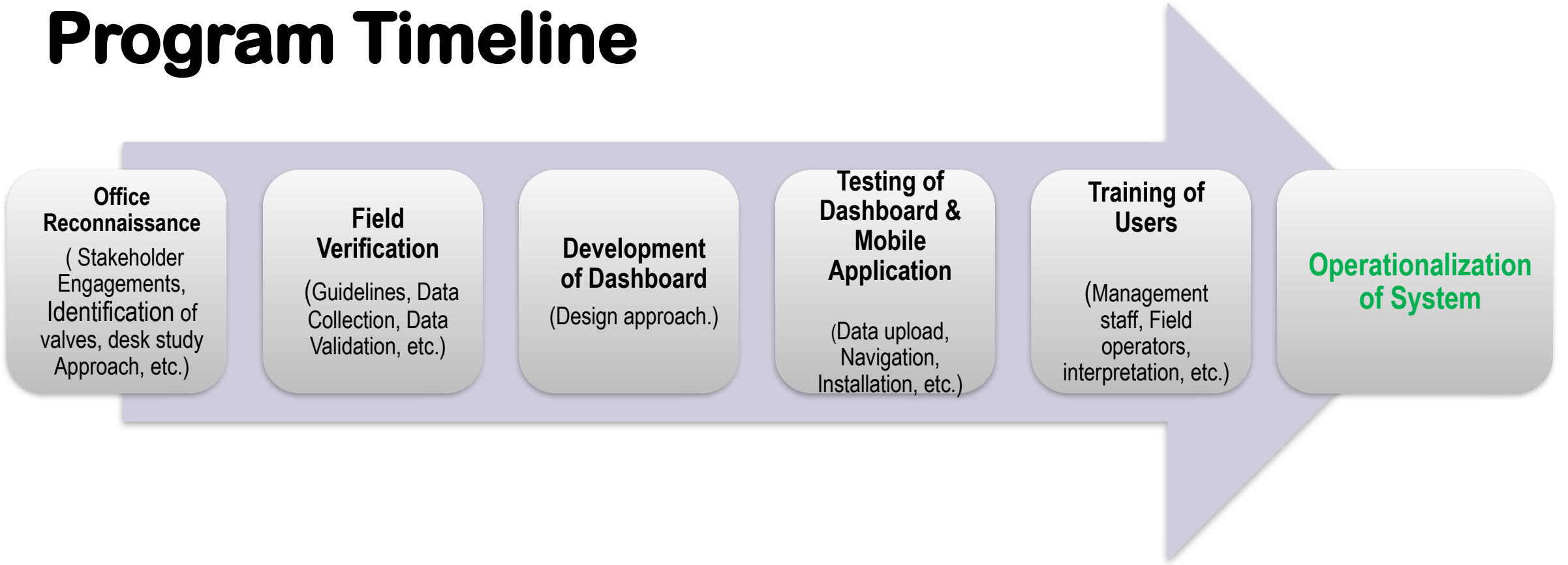
19-24 May

Ghana Water - Public

Accra, Ghana

Your World, Our World:
Resilient Environment
and Sustainable
Resource Management
for All

Program Timeline



August 2023 to September 2023

October 2023

ORGANISED BY



PLATINUM SPONSORS





FIG Working Week 2024

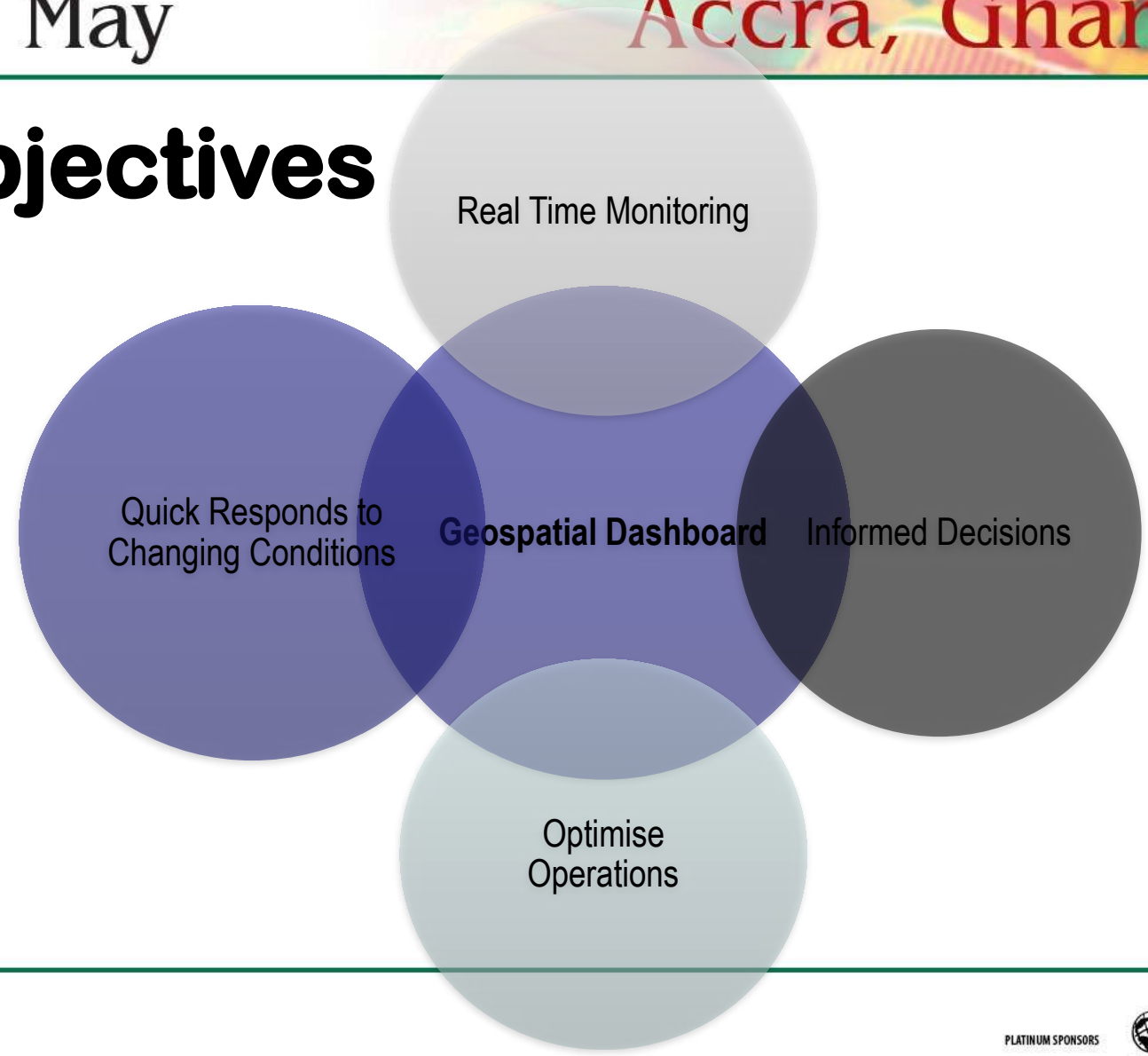
19-24 May

Ghana Water - Public

Accra, Ghana

Your World, Our World:
Resilient Environment
and Sustainable
Resource Management
for All

Program Objectives



Enoch Mensah, PE-GhIE

ORGANISED BY



PLATINUM SPONSORS





FIG Working Week 2024

19-24 May

Ghana Water - Public

Accra, Ghana

Your World, Our World:
Resilient Environment
and Sustainable
Resource Management
for All



Office Reconnaissance

- The GIS and Distribution Engineers accessed the WDN.
- They focused on the valves that are operated within the areas affected
- The number of valves that were turned to either supply or deny water to an area was taken note along with the number of days of supply
- The activity primarily relied on the following:
 - Web maps;
 - Paper maps;
 - Attributes of valves.
 - Customer location

ORGANISED BY



PLATINUM SPONSORS





FIG Working Week 2024

19-24 May

Ghana Water - Public

Accra, Ghana

Your World, Our World:
Resilient Environment
and Sustainable
Resource Management
for All

Field Verification



- Navigation
- Status of valve tested
- Possible number of turns tested
- Extent of supply

ORGANISED BY



PLATINUM SPONSORS





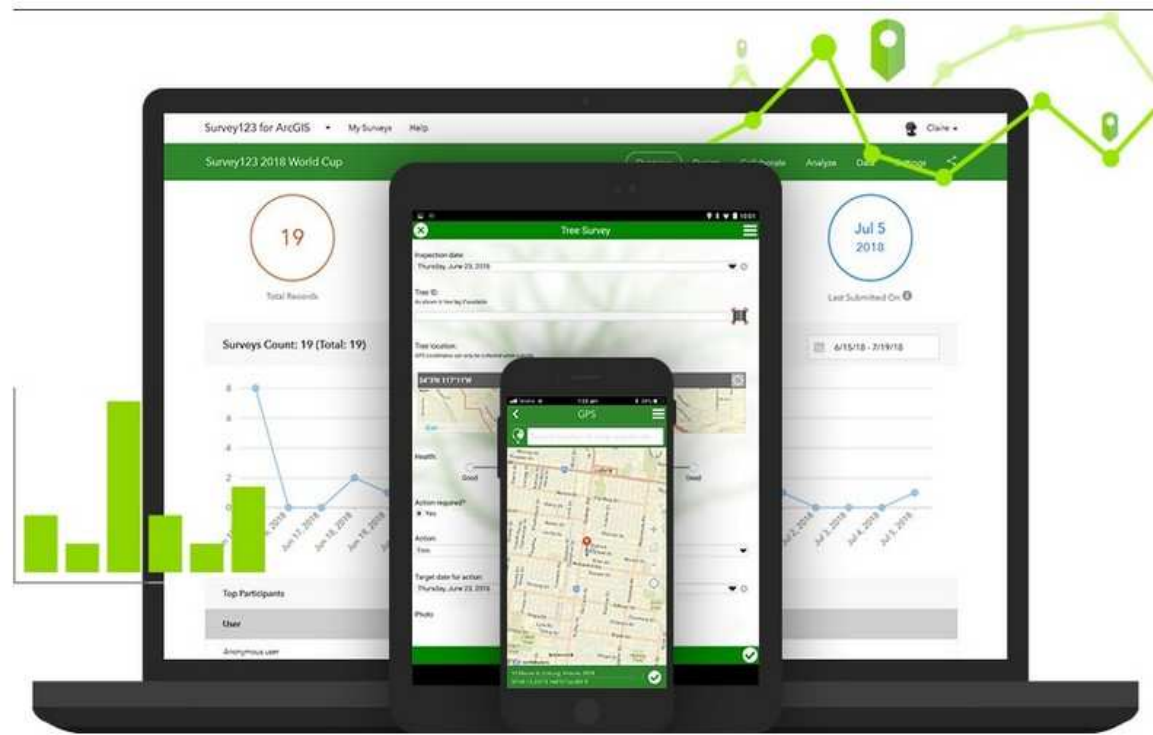
FIG Working Week 2024

19-24 May

Accra, Ghana

Your World, Our World:
Resilient Environment
and Sustainable
Resource Management
for All

Development of Dashboard & App



- ESRI ARCGIS Enterprise
- Design of interface
- Design of forms
- Installation of App



FIG Working Week 2024

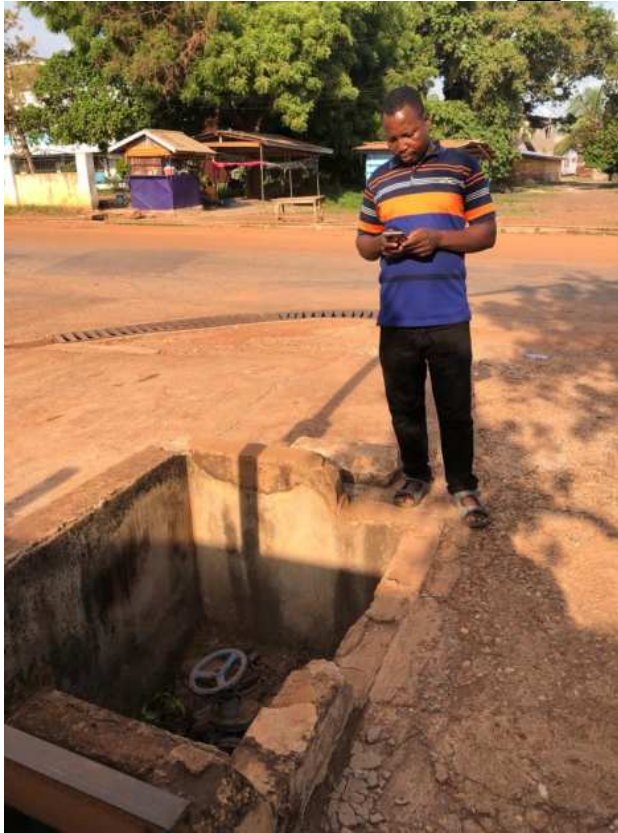
19-24 May

Ghana Water - Public

Accra, Ghana

Your World, Our World:
Resilient Environment
and Sustainable
Resource Management
for All

Testing of Dashboard & Mobile App



No SIM 16:23

Water Rationing

Date of rationing
Tuesday, May 7, 2024

Time valve was controlled
4:23 PM

Was the valve opened or closed

Number of turns

Supply Areas

Supply Days

Affected Areas

The test begun by:

- Navigating to the valve locations
- Login into the mobile app
- Valve opened/closed
- Data logged into the system
- Data monitored at the backend
- Process closed



FIG Working Week 2024

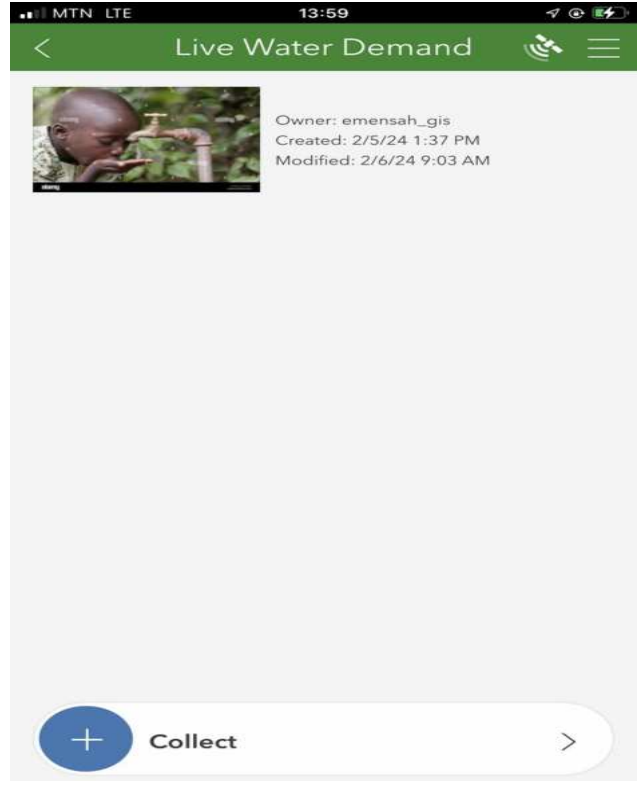
19-24 May

Ghana Water - Public

Accra, Ghana

Your World, Our World:
Resilient Environment
and Sustainable
Resource Management
for All

Training



Transmission via internet



Address –
survey123.arcgis.com/survey.



Password – XXXXXXXX

ORGANISED BY



PLATINUM SPONSORS





FIG Working Week 2024

19-24 May

Ghana Water - Public

Accra, Ghana

Your World, Our World:
Resilient Environment
and Sustainable
Resource Management
for All

Training



ArcGIS Survey123 - My surveys

Portal URL: <https://gisserver.gwccps.com/arcgis> Reset Enoch

Live Water Demand Overview Design Collaborate Analyze Data Settings

2/6/24 - 5/6/24 Filter Report Export Open in Map Viewer Form view 402/402

last_edited_date	Name of valve operator	Date of rationing	Time valve was contr...	Was the valve opene...	Number of turns	Supply Areas	Supply Days	Affected Areas	Affected Days
5/3/2024, 7:48 AM	Osei Kwadwo	May 3, 2024	07:11	Opened	16-20	Town center	1		
5/3/2024, 7:48 AM	Osei Kwadwo	May 3, 2024	07:06	Opened	11-15	Getfund	1		
5/3/2024, 7:48 AM	Osei Kwadwo	May 3, 2024	06:57	Opened	11-15	Fiapre	1	Residency	1
5/3/2024, 7:47 AM	Osei Kwadwo	May 2, 2024	18:09	Closed	26-30	Residency	1	Town centre	1
5/3/2024, 7:47 AM	Osei Kwadwo	May 2, 2024	18:00	Closed	16-20	Residency	1	Town centre	1
5/3/2024, 7:47 AM	Osei Kwadwo	May 2, 2024	17:31	Closed	11-15	Residency	1	Getfund	1
5/3/2024, 7:47 AM	Osei Kwadwo	May 2, 2024	17:23	Opened	11-15	Residency	1	Dumasua	1
5/3/2024, 7:47 AM	Osei Kwadwo	May 2, 2024	07:21	Opened	16-20	Town center	1		
5/3/2024, 7:47 AM	Osei Kwadwo	May 2, 2024	07:13	Opened	11-15	Fiapre	1	Residency	1
5/3/2024, 7:47 AM	Osei Kwadwo	April 30, 2024	19:19	Opened	26-30	Zinco	1	Dumasua	4
5/3/2024, 7:47 AM	Osei Kwadwo	April 30, 2024	07:10	Opened	16-20	Town center	1		
5/3/2024, 7:47 AM	Osei Kwadwo	April 30, 2024	07:03	Opened	11-15	Fiapre	1	Residency	1
5/3/2024, 7:47 AM	Osei Kwadwo	April 29, 2024	07:02	Opened	16-20	Town center	1		
5/3/2024, 7:47 AM	Osei Kwadwo	April 29, 2024	06:58	Opened	6-10	Getfund	1		
5/3/2024, 7:47 AM	Osei Kwadwo	April 28, 2024	17:22	Closed	11-15	Residency	1	Getfund	1
5/3/2024, 7:47 AM	Osei Kwadwo	April 28, 2024	17:15	Closed	26-30	Residency	1	Town centre	1
5/3/2024, 7:47 AM	Osei Kwadwo	April 28, 2024	17:14	Closed	26-30	Residency	1	Town centre	1
5/3/2024, 7:47 AM	Osei Kwadwo	April 28, 2024	17:05	Closed	11-15	Residency	1	Dumasua	1
5/3/2024, 7:47 AM	Osei Kwadwo	April 27, 2024	17:51	Closed	16-20	Residency	1	Town centre	
5/3/2024, 7:47 AM	Osei Kwadwo	April 27, 2024	17:32	Closed	26-30	Residency	1	Town centre	1
5/3/2024, 7:47 AM	Osei Kwadwo	April 27, 2024	17:24		11-15	Residency	1	Dumasua	1

0 of 402 selected

ORGANISED BY



PLATINUM SPONSORS





FIG Working Week 2024

19-24 May

Ghana Water - Public

Accra, Ghana

Your World, Our World:
Resilient Environment
and Sustainable
Resource Management
for All

Results

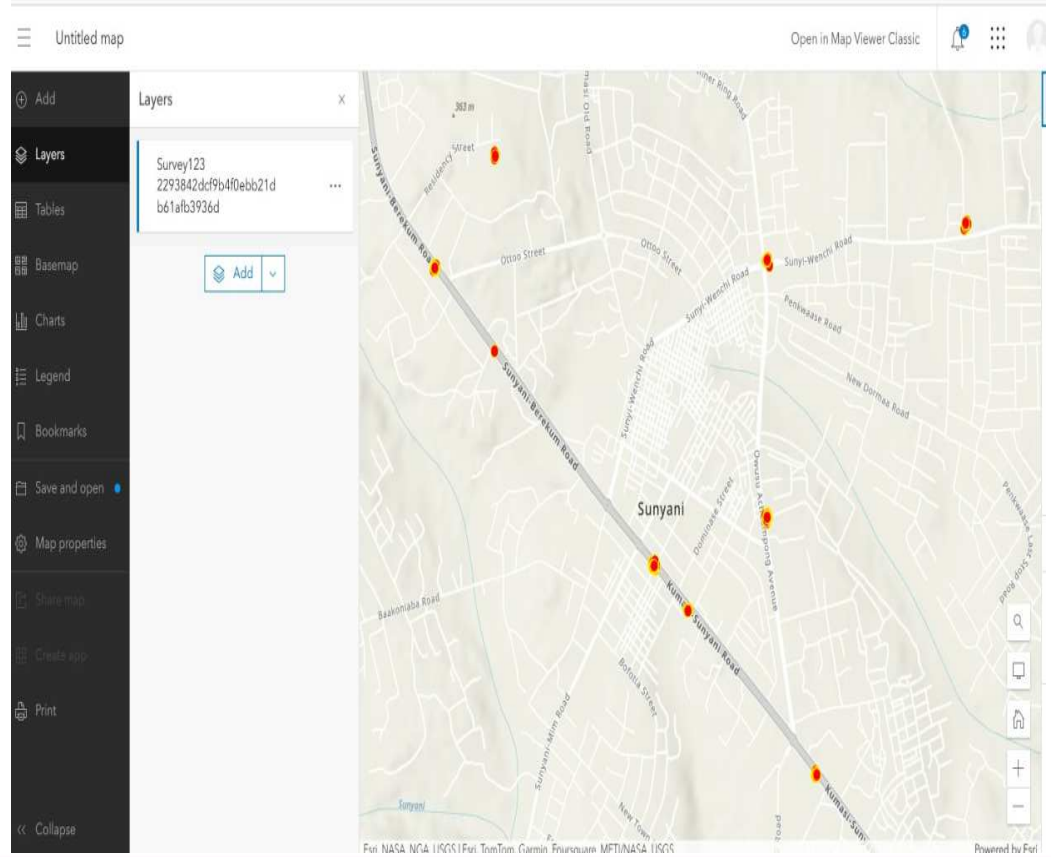
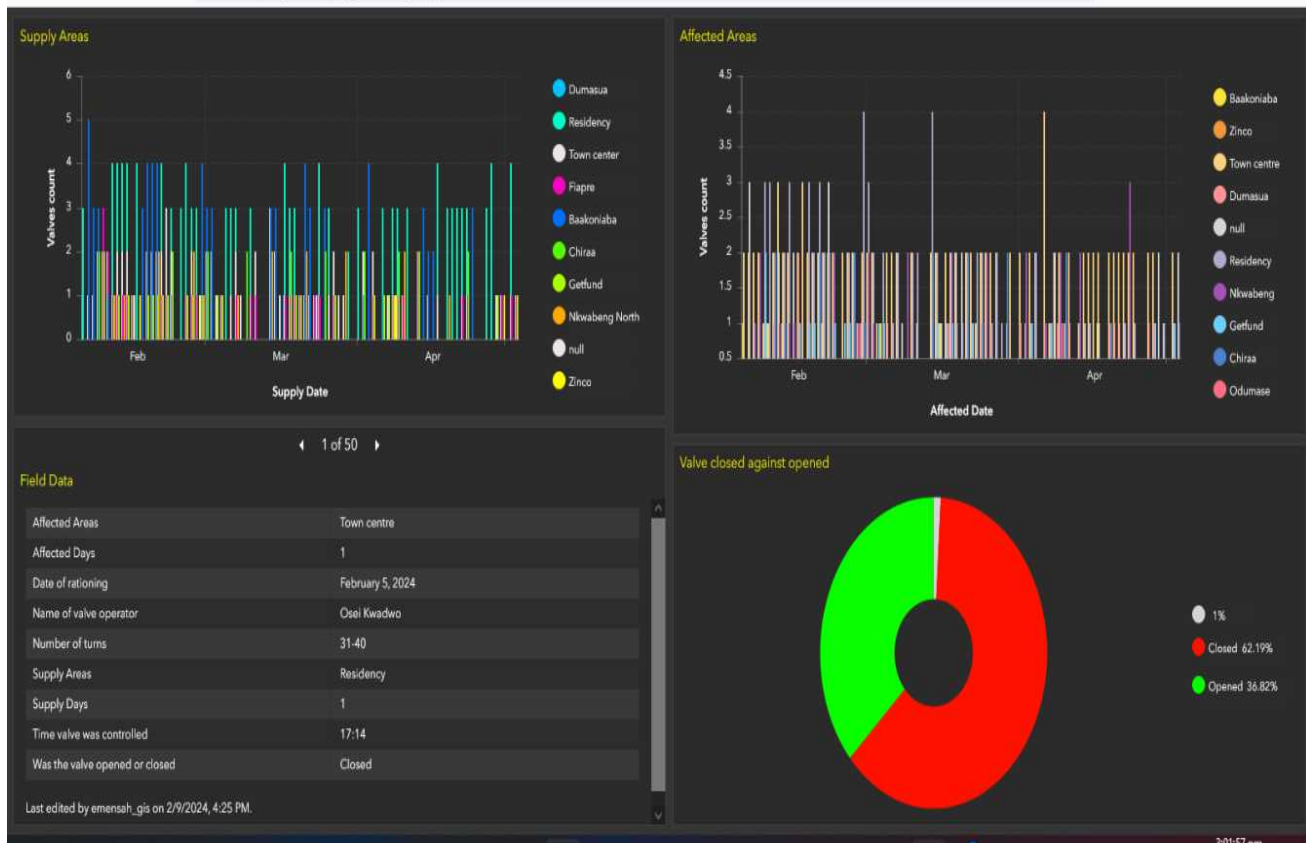




FIG Working Week 2024

19-24 May

Ghana Water - Public

Accra, Ghana

Your World, Our World:
Resilient Environment
and Sustainable
Resource Management
for All

Challenges

- Connectivity issues
- Phone breakdown

ORGANISED BY



PLATINUM SPONSORS





FIG Working Week 2024

19-24 May

Accra, Ghana

Your World, Our World:
Resilient Environment
and Sustainable
Resource Management
for All

SUSTAINABLE DEVELOPMENT **GOALS**

International Federation of Surveyors supports the Sustainable Development Goals

Commission 2,3,7,8

Commission's name

Serving Society for the Benefit of People and Planet

