Under the Patronage of His Excellency **Eng. Abdulrahman bin Abdulmohsen AlFadley**
Minister of Environment, Water & Agriculture

منتدى المياه السعودي
saudi water forum SWF 2024

WATER CONSERVATION ROADMAP

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Hilton Riyadh Hotel & Residences
Riyadh, Saudi Arabia

Organized by

وزارة البيئة والمياه والزراعة
Ministry of Environment Water & Agriculture

المؤسسة العامة لتحلية المياه المالحة
Saline Water Conversion Corporation (SWCC)

شركة المياه الوطنية
National Water Company

Organizing Partners

الشركة السعودية لشراكات المياه
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Saudi Irrigation Organization
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Water Regulator

المركز الوطني لكفاءة وترشيد المياه
NATIONAL WATER EFFICIENCY AND CONSERVATION CENTER
MAEE
مائي

Overview

The Purpose of WCRM

How to Develop a WCRM

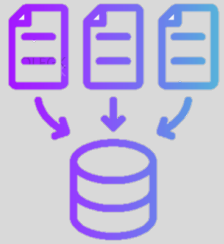
Hands on Real Example

How to Create Your KPIs

The Purpose of WCRM

Water is Non-renewable Natural Source

The Importance of Having a Strategy



The Importance of Having Data

How to Develop a WCRM

- ✓Overview of Water Use
- ✓Develop Water Cycles & Mass Balance
- ✓Identification of Major Streams
- ✓Data Reporting
- ✓Water Conservation Opportunities and Initiatives
- ✓Contribution to Promote Water Conservation

How to Create Your KPI

- ✓Align your goal with your organization’s vision
- ✓Make your goal/KPI SMART (Specific, Measurable, Attainable, Relevant, and with Time frame)
- ✓ Create the Formula

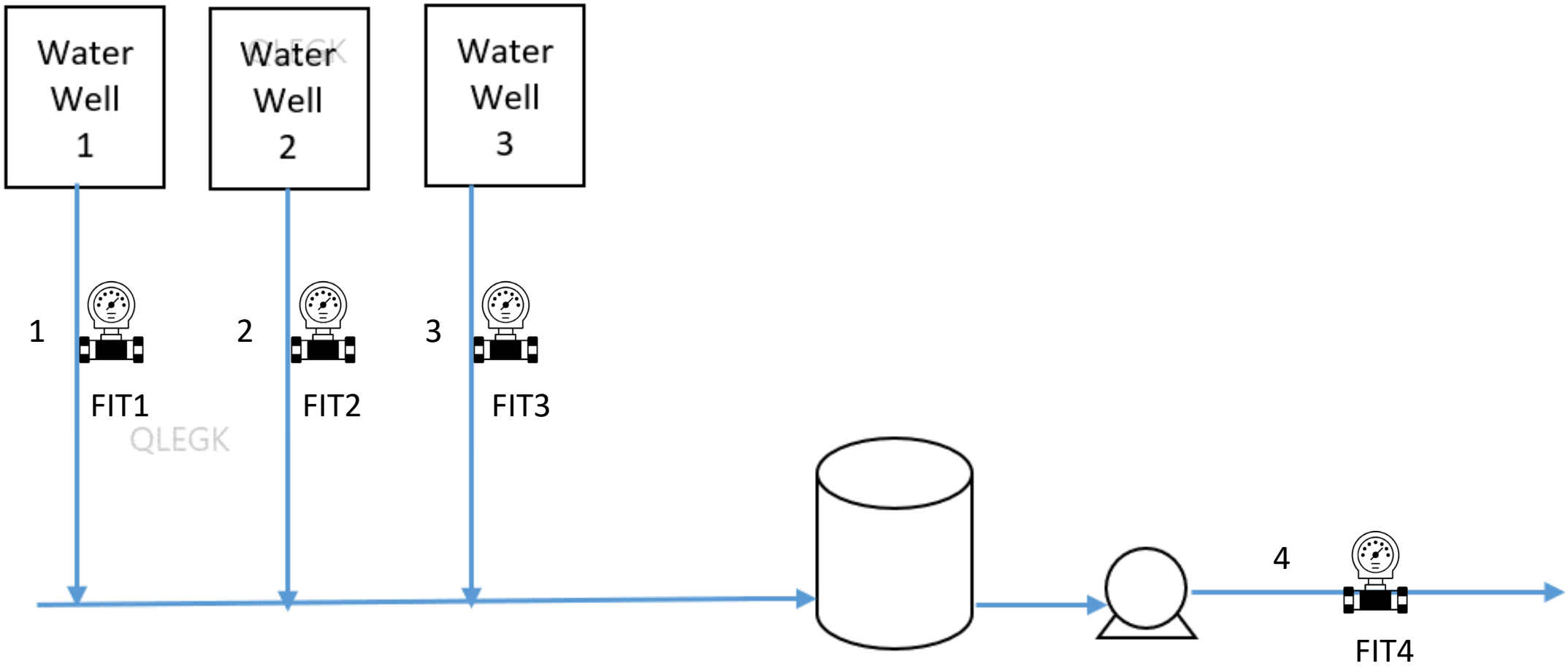
Hands on Real Example

Group Exercise 1

You are managing a water treatment facility that produces 9 million cubic meters of raw water extracted from 3 water wells. Each water well produces 3 million cubic meter. The product of all water wells are combined in a main stream that enters a storage tank. The storage tank sends the raw water to your city network through a pump with no water loss.

1) Develop a Water Cycle
2) Identify the Major Streams and the color code
3) Locate the flowmeters needed
4) Do the mass balance

Answer



Answer

Stream #	Description	Average Flow (MMCM)	Flow Meter #
1	WW#1 Production	3,000	FIT 1
2	WW#2 Production	3,000	FIT 2
3	WW#3 Production	3,000	FIT 3
4	Storage Tank Consumption	9,000	FIT 4

Answer

Water Type	Amount Produced (MMCM)	Amount Consumed (MMCM)	Amount Lost (MMCM)
Raw Water	9	9	0

Group Exercise 2

You are managing a water treatment facility that produces ground water. Your company just announced a new vision to reduce ground water production to 0 by 2027 . You are currently producing 20 MMCM per year of ground water. Your total water use is 50 MMCM. Create a 3 year KPI (2025, 2026, and 2027) to reduce your ground water use to 0 by 2027.

Answer

2024			2025			2026			2027		
TGW* (MMCM)	**TWU** (MMCM)**	**GWU (%)**	**TGW (MMCM)**	**TWU (MMCM)**	**GWU (%)**	**TGW (MMCM)**	**TWU (MMCM)**	**GWU (%)**	**TGW (MMCM)**	**TWU (MMCM)**	**GWU (%)**
20	50	40%	10	50	20%	5	50	10%	0	50	0%
KPI Target= 40%			KPI Target= 20%			KPI Target= 10%			KPI Target= 0%		