

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 KPIs WORKSHOP

PART 3



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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



الشركة السعودية لشراكات المياه
Saudi Water Partnership Company



المؤسسة العامة للمياه
Saudi Water Partnership Company



منظم المياه
Water Regulator



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



Organizing Partners

Water Conservation KPI Performance

Freshwater Consumption

$$FWC = TFW - TFR$$

TFW: The total amount of freshwater withdrawn to support operations.

TFR: The total amount of freshwater returned (“zero” for SA operations).

Freshwater (FW): The total amount of groundwater used with TDS level less than or equal to 2,000 mg/L, as per IPIECA Definition.

Water Conservation KPI Performance

$$\text{Groundwater Use, \%} = \frac{TGW}{TW} \times 100$$

TGW: Total amount of groundwater used to support the surface water use activities.

TW: Total amount of water used to support surface water use activities.

Water Conservation KPI Performance

$$WW \text{ Reuse, \%} = \frac{\text{Reused } WW}{WWG} \times 100$$

Reused WW: Total amount of facility generated (industrial/or sanitary) wastewater reused to support surface water use activities.

WWG: Total amount of wastewater generated from surface water use activities. This includes: sanitary wastewater, industrial wastewater

Target Setting Methodology

$$\mathbf{FWC\ Target = Baseline\ FWC\ Value - [X\ (\%) * Baseline\ FWC\ Value] * CF}$$

- *Baseline KPI Value: The baseline KPI is established based on the historical performance utilizing the average of three years of historical data.*
- *X represents a reduction percentage per year Proposed by EPD.*
- *CF is the correction factor based on bottom-up proposals by taking into consideration of operational reality, planned projects, and T&I plans.*

$$\mathbf{GWU\ Target = Baseline\ GWU\ Value\ (\%) - X\ (\%) * CF}$$

$$\mathbf{WWR\ Target = Baseline\ WWR\ Value\ (\%) + X\ (\%) * CF}$$

Thank You