

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

**منتدى المياه السعودي**  
saudi water forum

SWF 2024



# Securing Our Water Future: The Power of Water Safety Plans

Presented by Basim Alghamdi on behalf of Aramco



29 April – 01 May 2024



Hilton Riyadh Hotel & Residences  
Riyadh, Saudi Arabia

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



شركة المياه الوطنية  
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Water Regulator



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# Water Challenges in Saudi Arabia



Growing population and economic development.



Limited freshwater resources.

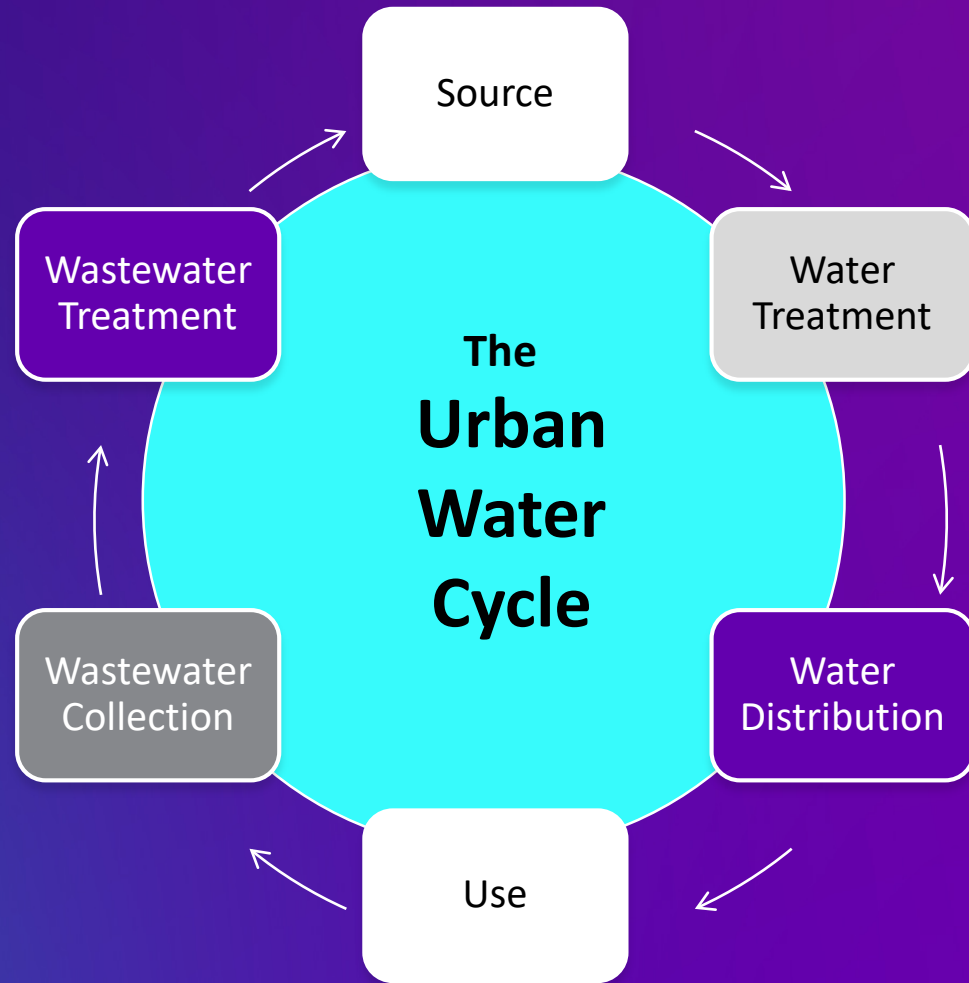


Need for sustainable water management solutions.



# Introducing Water Safety Plans (WSPs)

- ✓ **Water Safety Plans (WSPs):** A proactive approach to safe drinking water.
- ✓ Comprehensive risk assessment and management throughout the water supply chain.
- ✓ From source (catchment) to consumer.



# Benefits of Water Safety Plans



## Public Health

- ✓ Reduced risk of waterborne diseases.
- ✓ Improved water quality consistency.
- ✓ Enhanced consumer confidence.



## Safeguarding Water

- ✓ Minimizing waste.
- ✓ Improved operational efficiency.
- ✓ Cost savings through prevention



# The WSP Framework

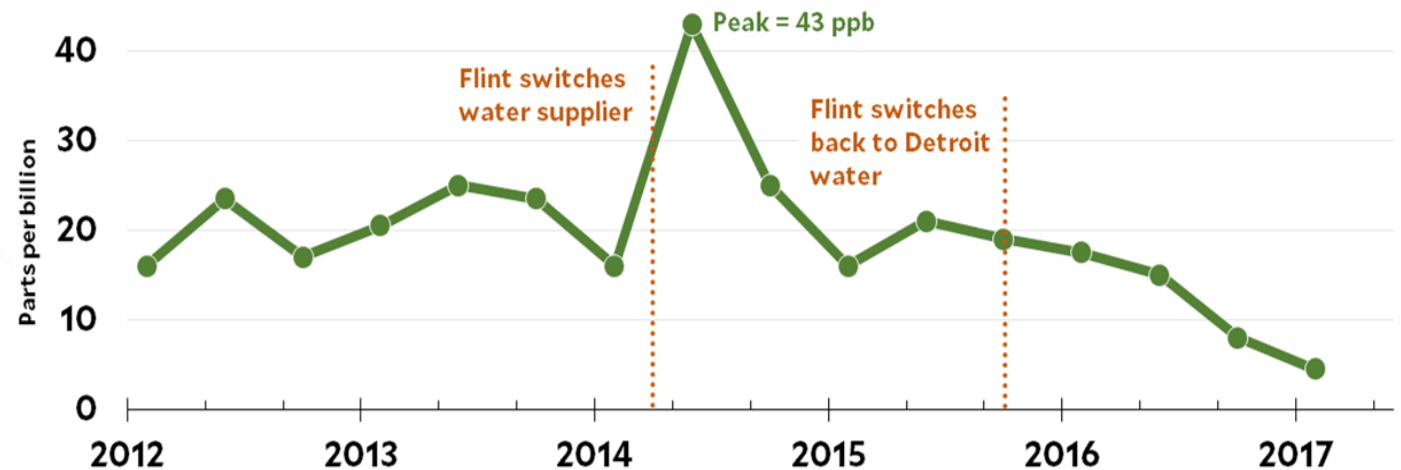


# The Flint Water Crisis (2014-2016)

- Flint, Michigan switched its water source to the Flint River.
- River water was not properly treated for corrosion control.
- Thousands of residents were exposed to lead.

### Lead Contamination in Flint Water

Based on 90th Percentile Standard (WLL90)



Source: [Roy, Tang and Edwards \(2019\)](#)

# How a Water Safety Plan Could Have Prevented the Crisis



## Water source assessment:

Evaluates potential contamination.



## Treatment process assessment:

Ensures adequacy for the new source.



## Monitoring and testing:

Regularly checks for contaminants.



## Emergency response plan:

Addresses problems quickly.



# Aramco's WSP Implementation

## Putting WSPs into practice at Aramco



**Identify contamination risks**



**Advanced treatment processes**



**Robust monitoring system**



**Transparent communication**





# The Evolving Landscape of Water Production & WSPs



New  
Challenges



Exciting  
Opportunities



WSP  
Alignment

# Conclusion

- 01 WSPs: A powerful tool for ensuring safe drinking water.
- 02 Aramco's commitment to water stewardship and continuous improvement.
- 03 Working together for a sustainable water future in Saudi Arabia.



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# THANK YOU!



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