

# This presentation premiered at WaterSmart Innovations

[watersmartinnovations.com](http://watersmartinnovations.com)



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Frank Burns



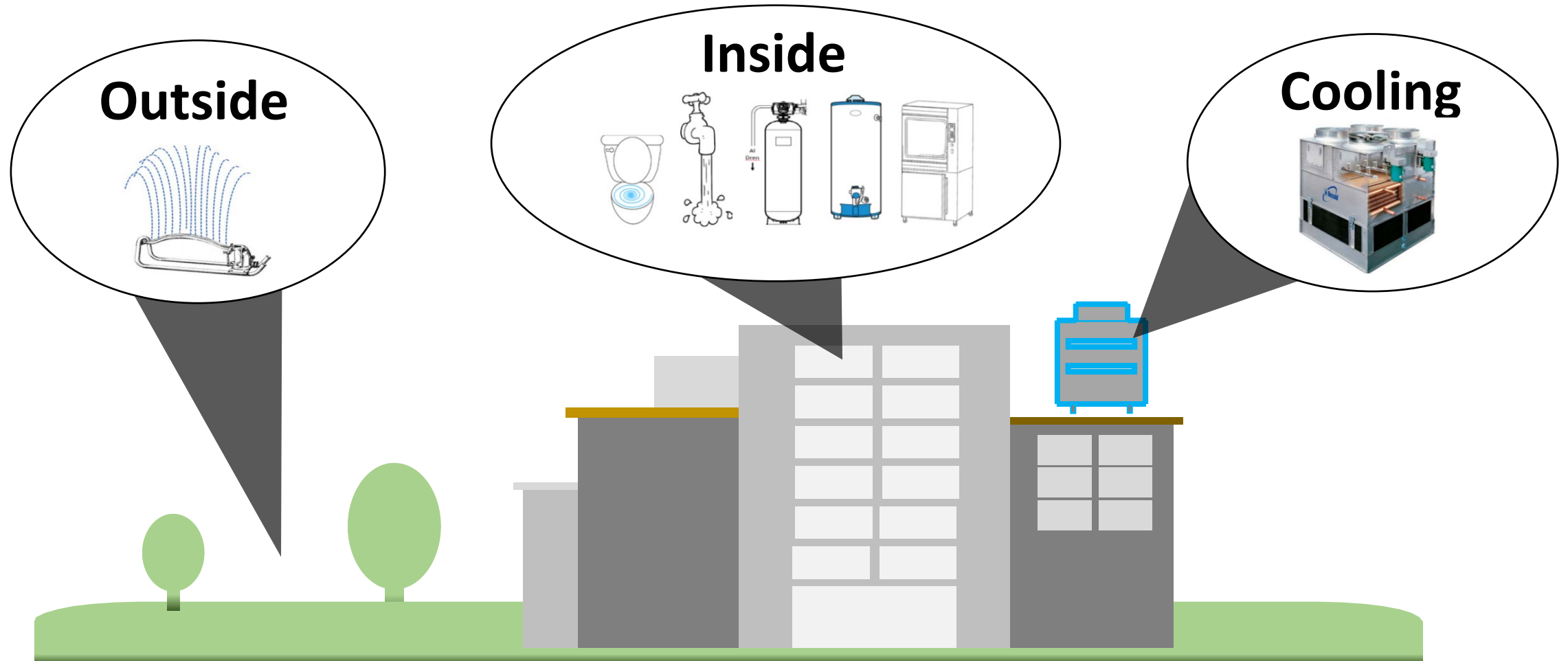
**Waste**

**Evolving Water Efficiency to An  
Operational Mindset**

**Optimal**

# Reality #1:

## Problems are hidden inside properties



Reality #2:

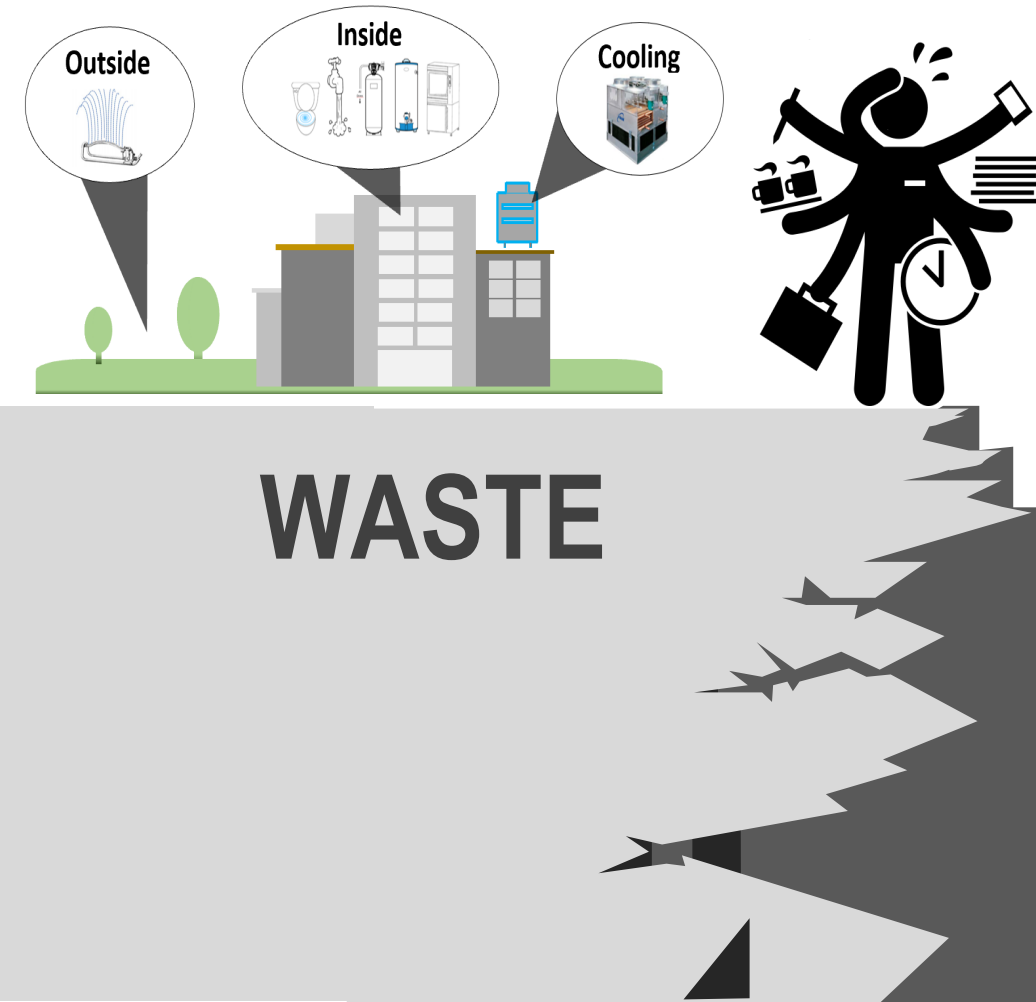
Every property has someone in charge of operating it.

The **PROPERTY OPERATOR**

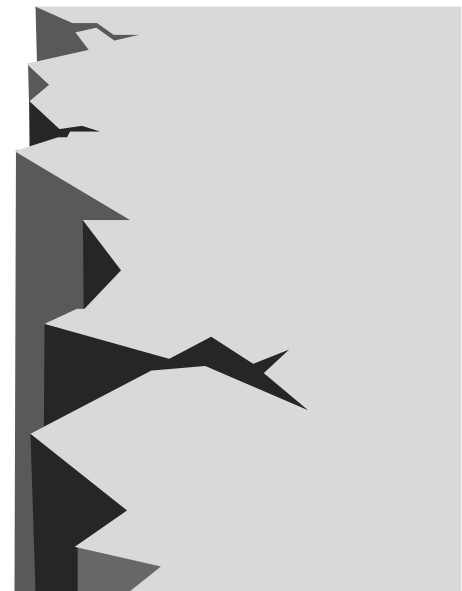


Operators get things done!

# What is missing?

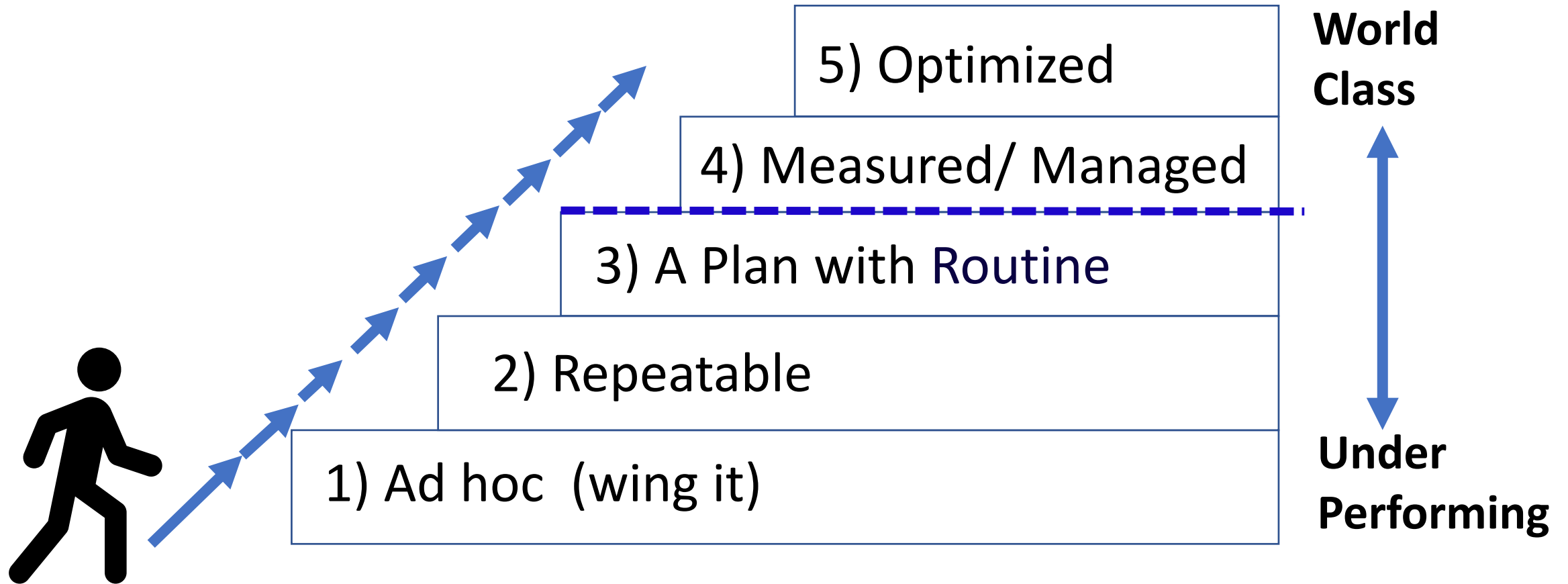


## Optimal



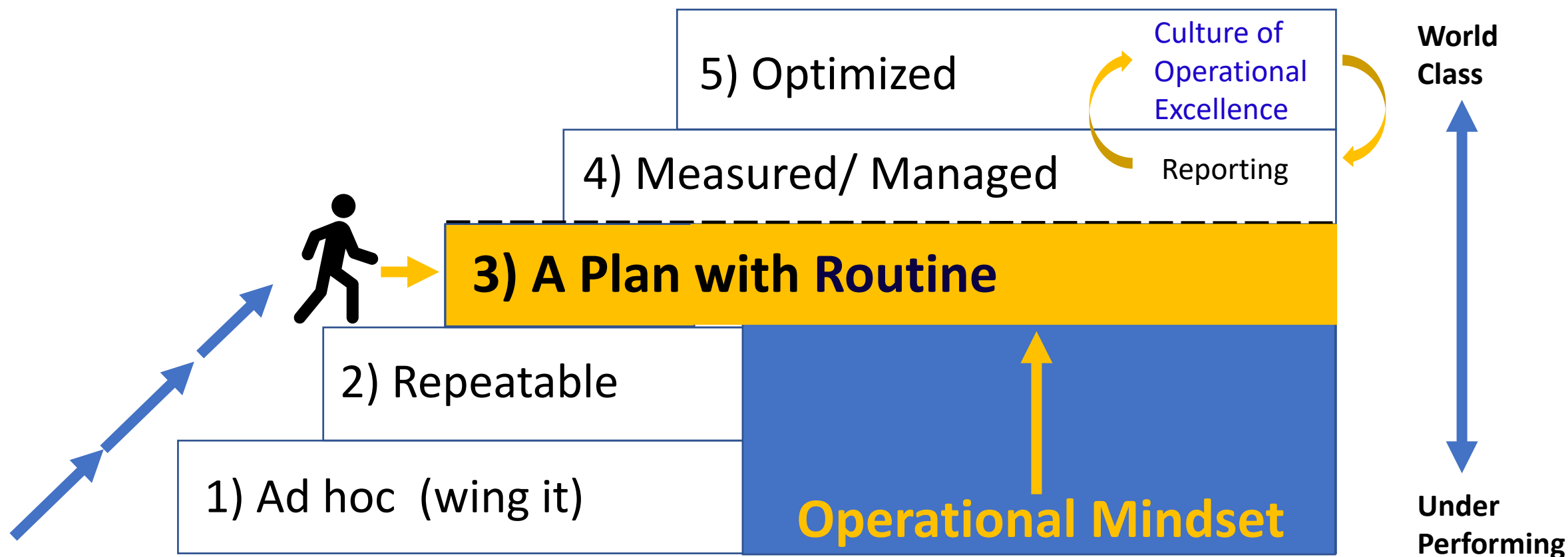
## 1. Use an Operational Mindset

# Operational Capability Steps



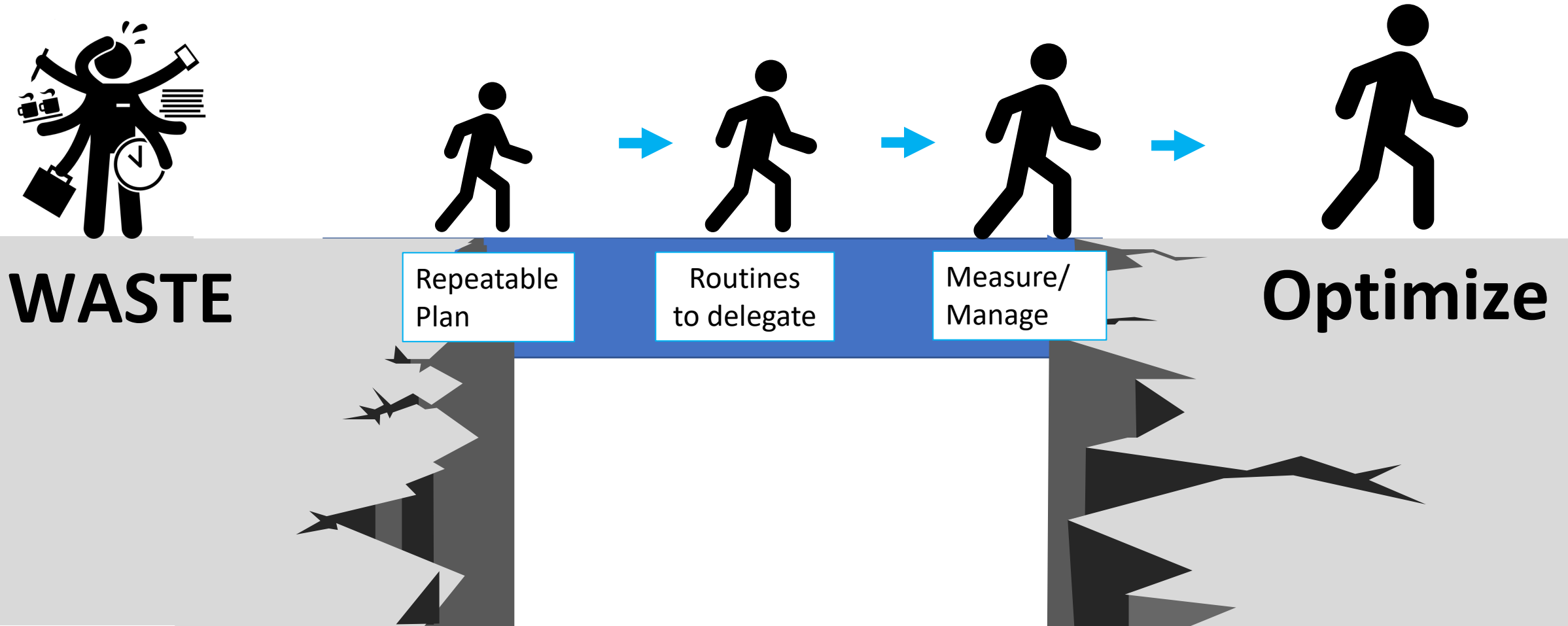
## Formula:

**Plan to** make water efficiency as routine as recycling



## Property Formula:

**Plan to** make water efficiency as routine as recycling



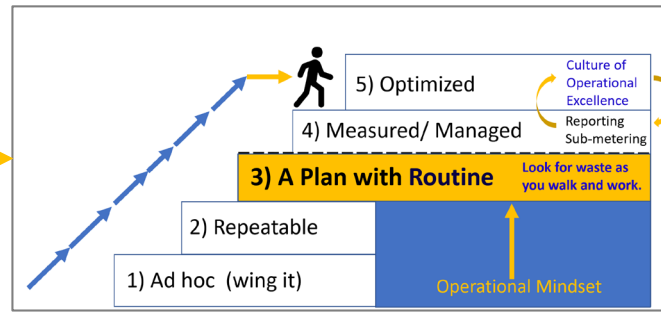


# City & Org Formula:

**Plan to** make water efficiency as routine as recycling

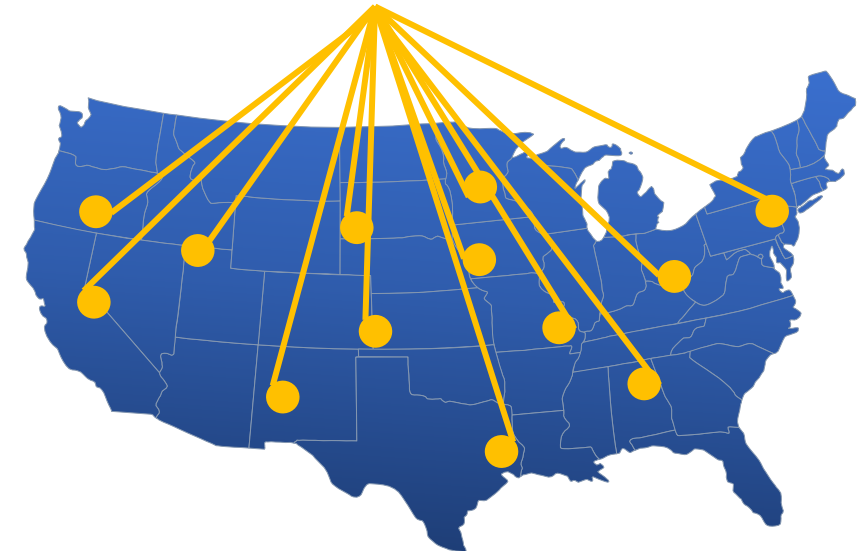


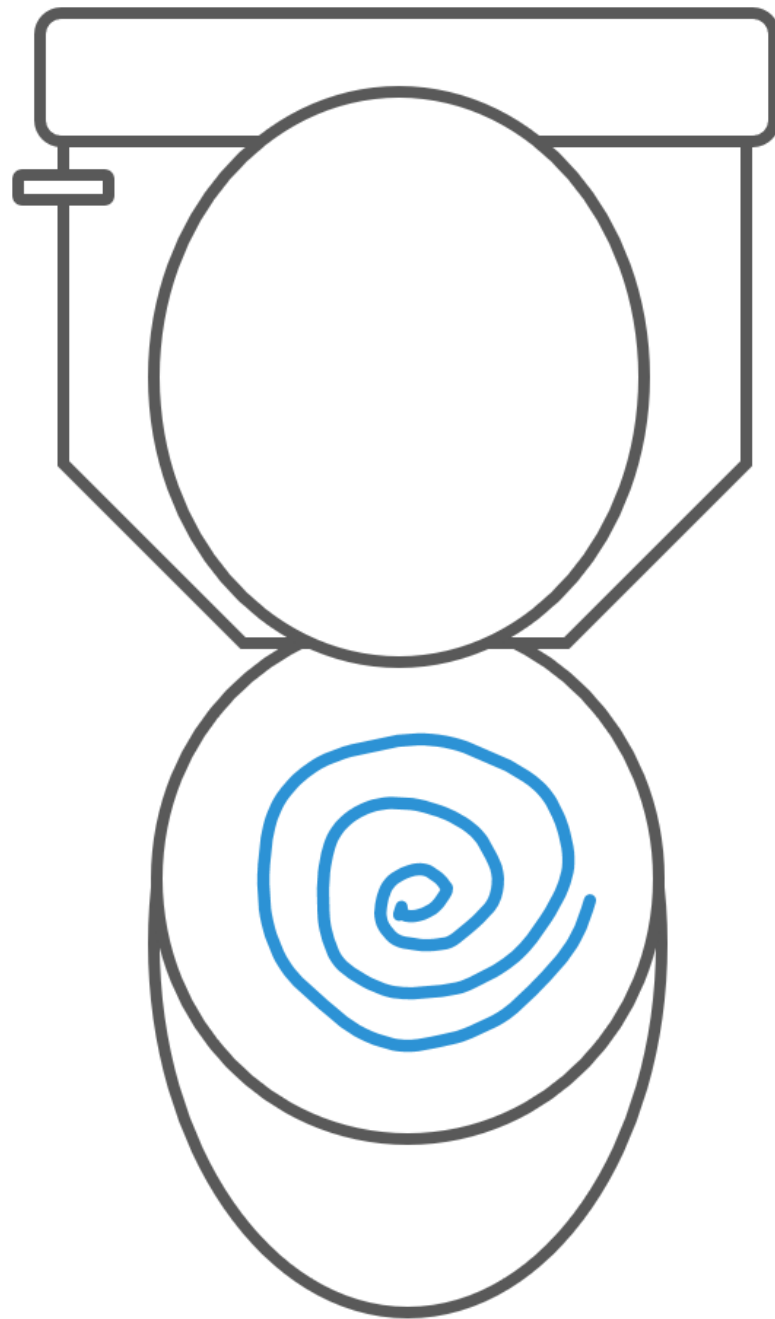
Property Level  
Success



Successful Cities  
& Organizations

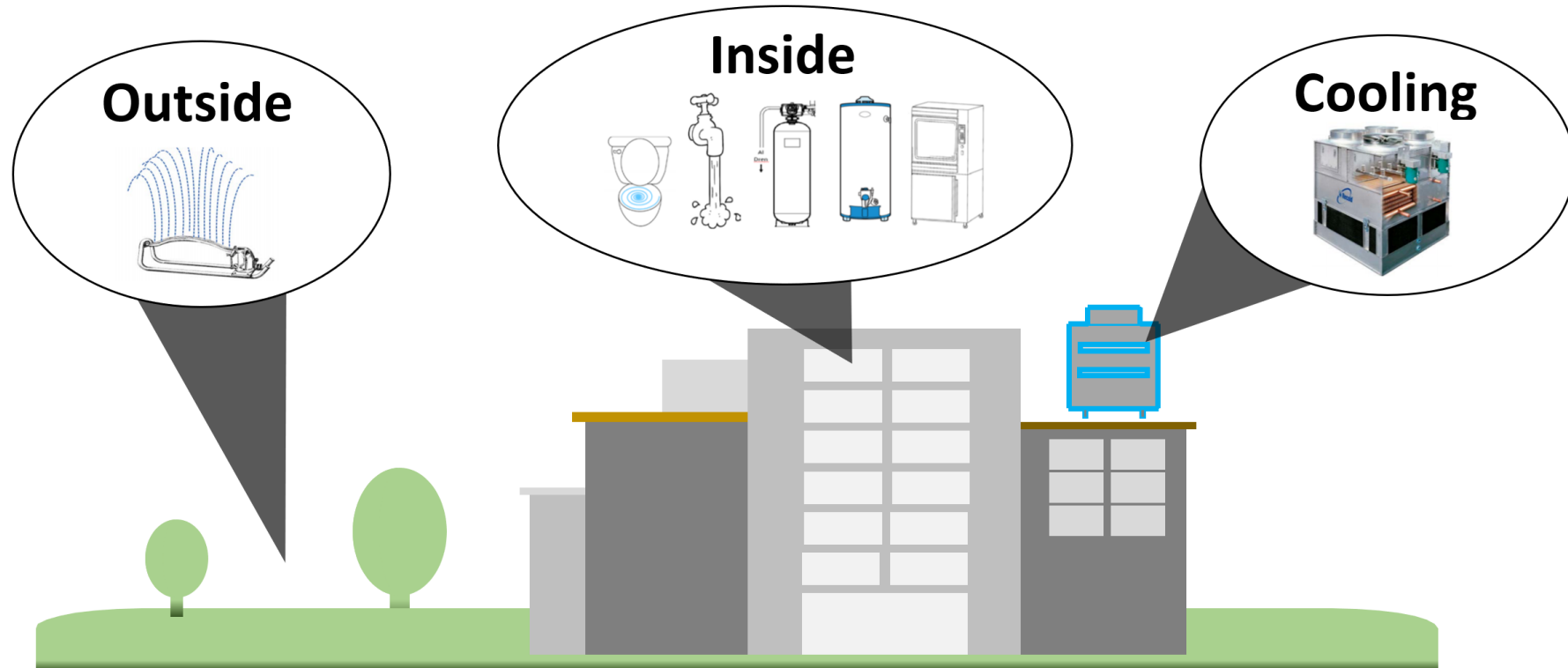
Sustainable Success

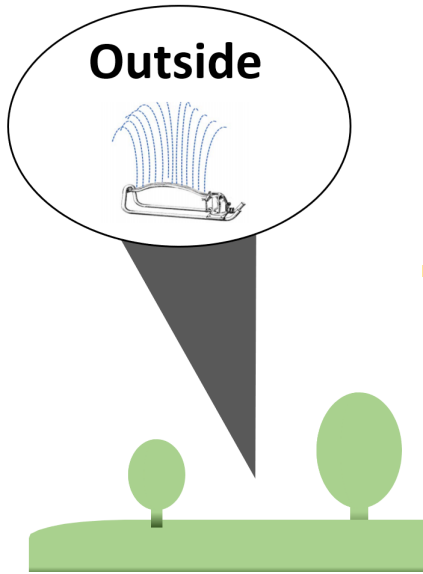




# Toilets are a minor offender

compared to hundreds of other failure points common to properties everywhere.





# Three Steps to Optimal Efficiency

## 1

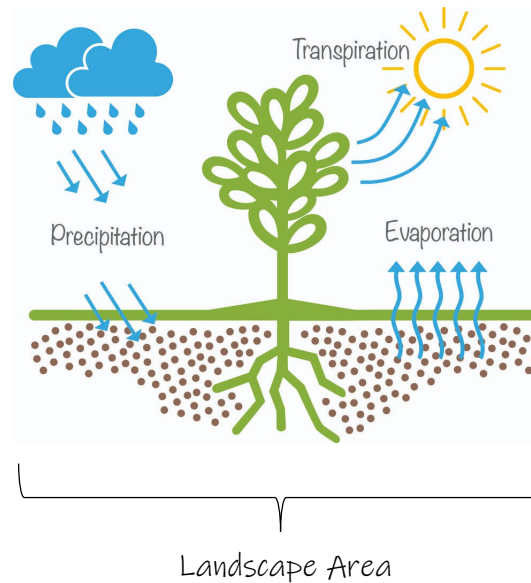
Fix Problems



## 2

Optimize Water Use

Budget



## 3

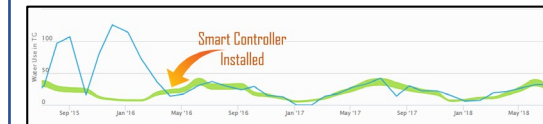
Control

A) Irrigation Controller

- Water Schedule
- Weather-based Controller

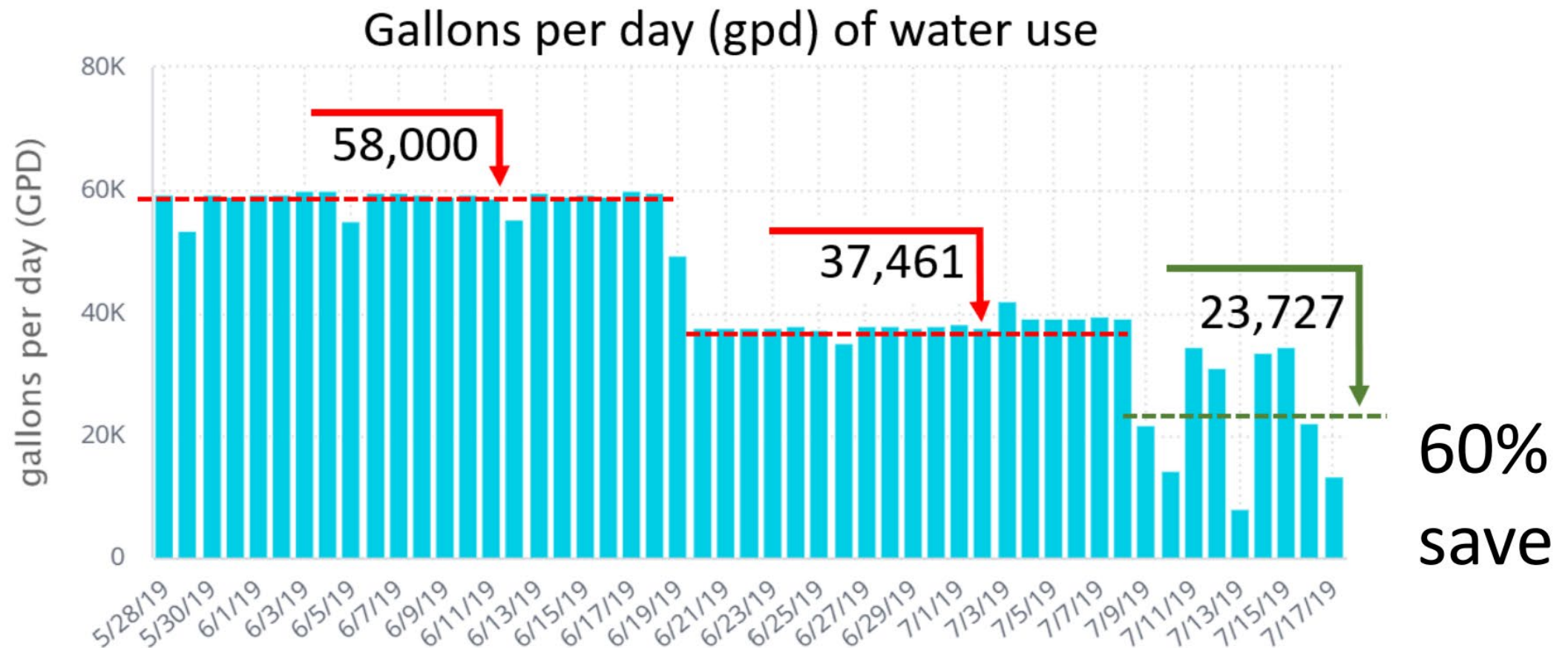
B) Measurement

C) SOP: based on site conditions

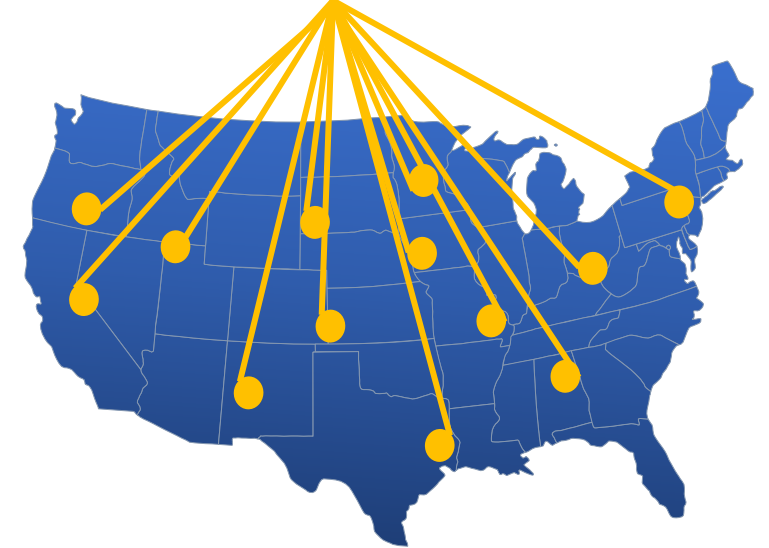
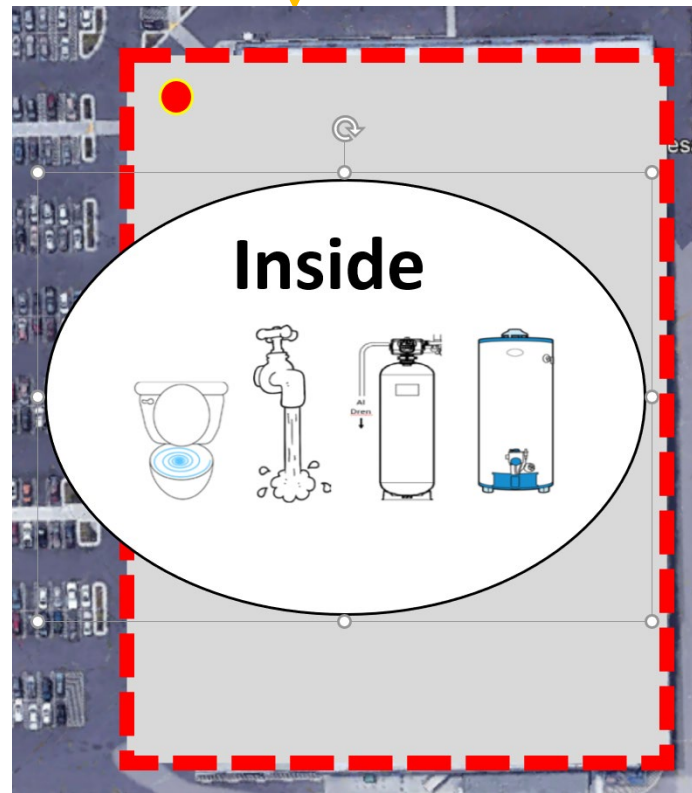
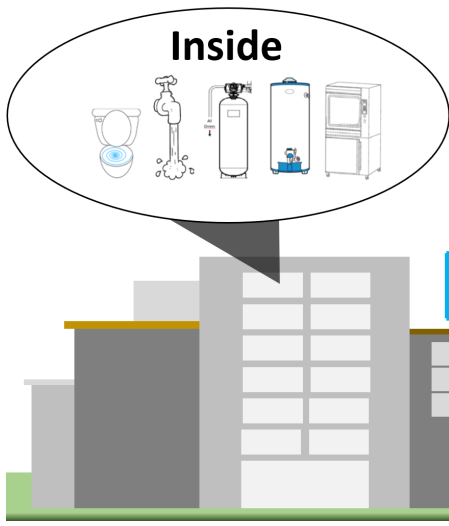


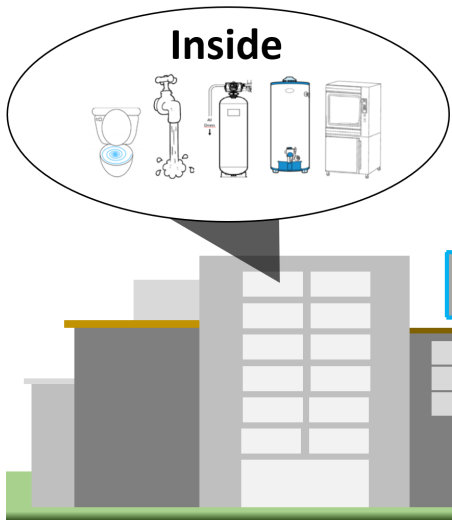
# Spokane: landscape water use example

## Data driven prescriptive guidance result









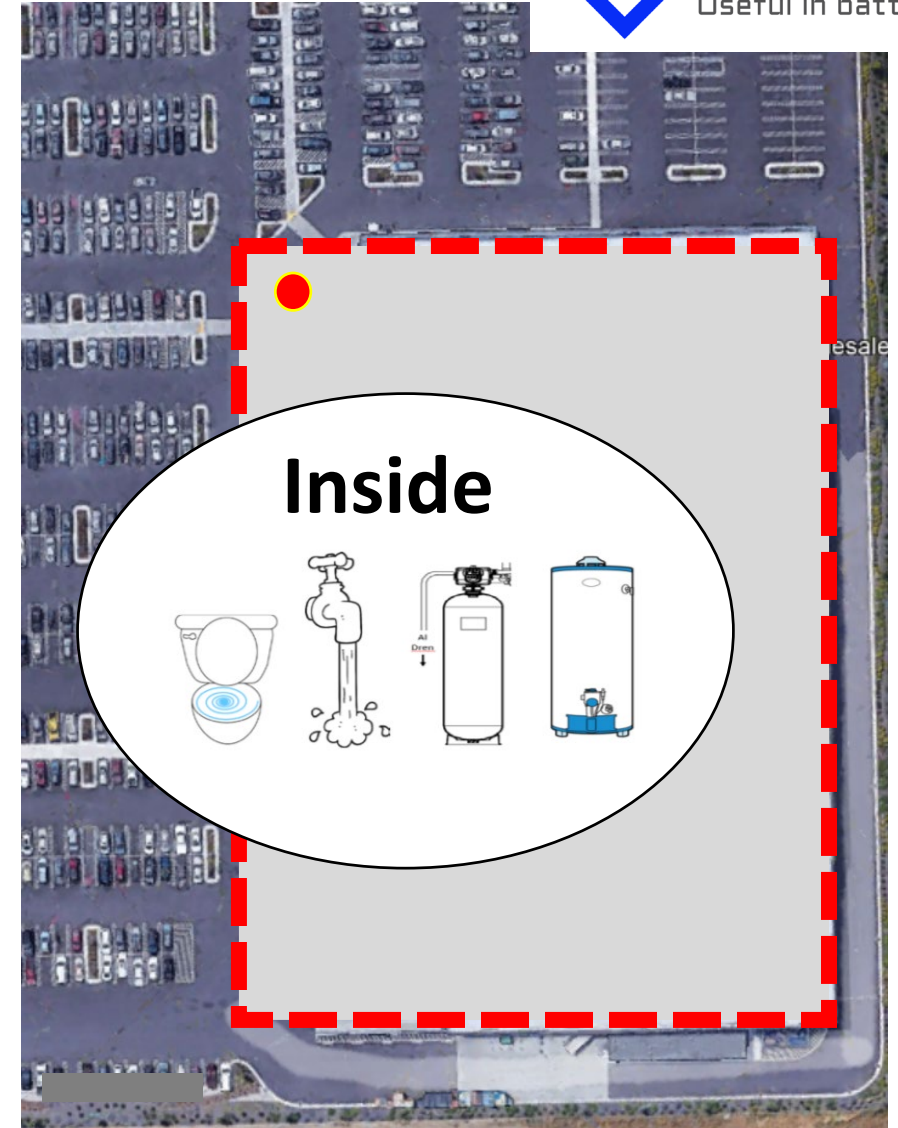
1) Are you using enough water?

2) The GOAL is to reduce wastage, NOT restrict water use...

Easy delegation steps

Check List

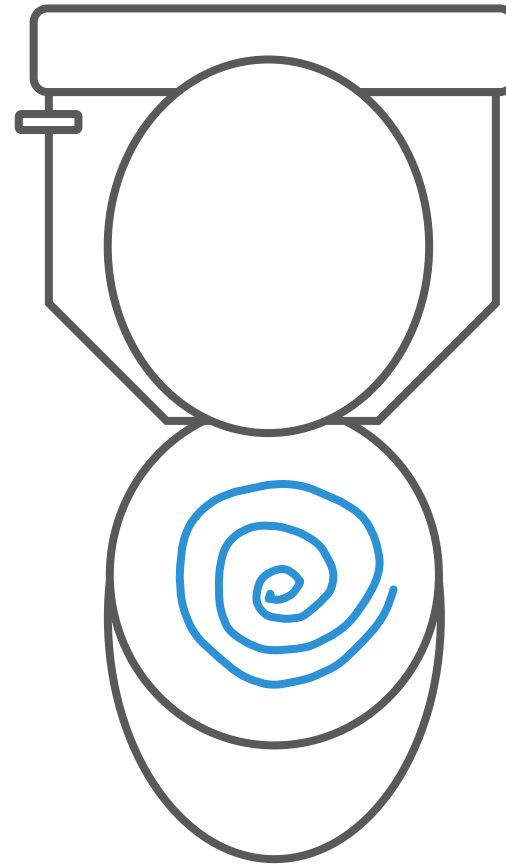
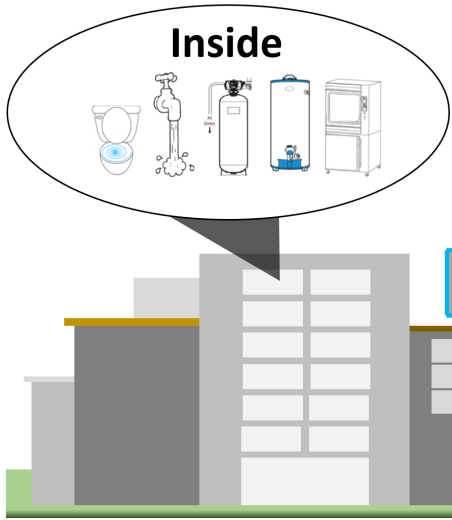
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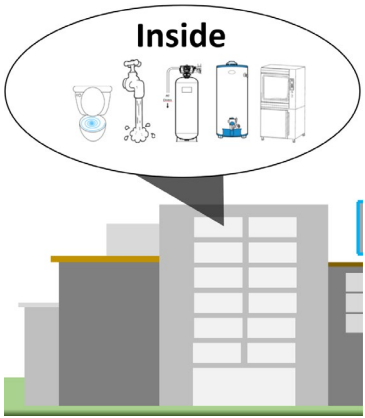
Show the path forward...



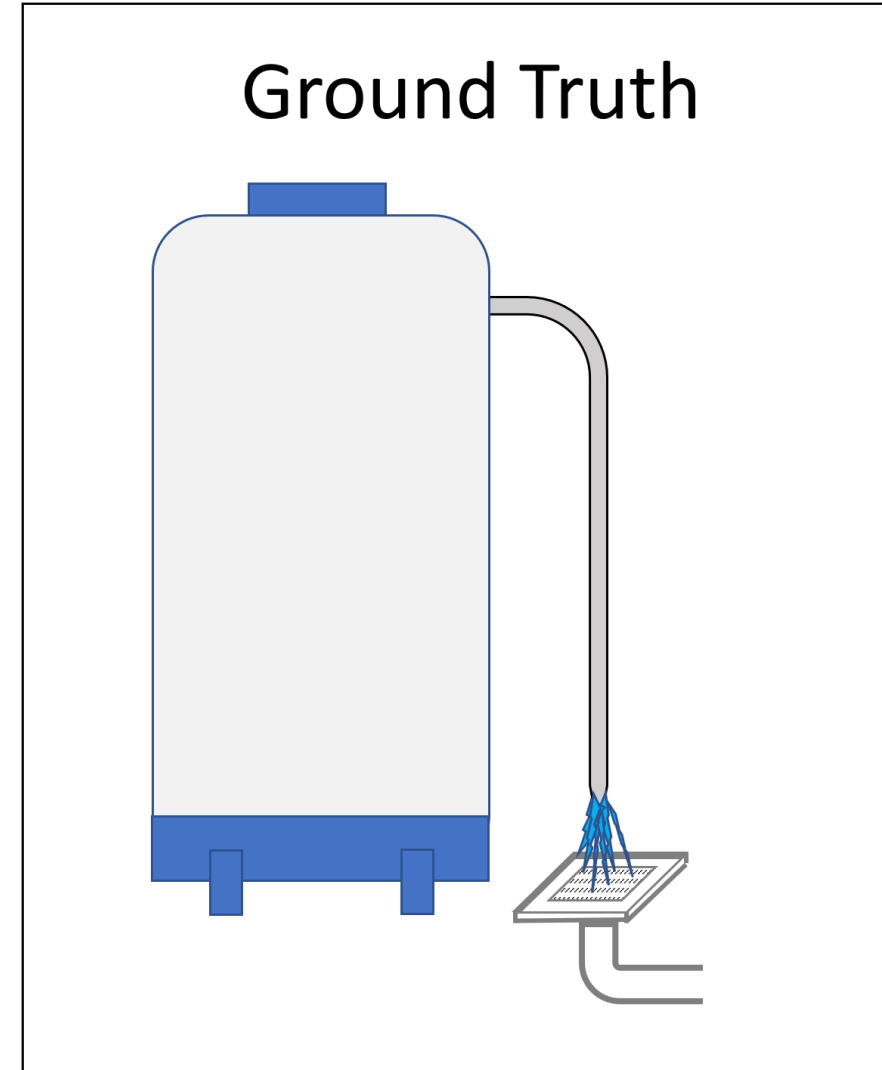
# Delegate to internal experts



1 gal/ min leak = 1,440 gal/day  
Four house holds / day



Train staff to see waste  
as they walk and work.

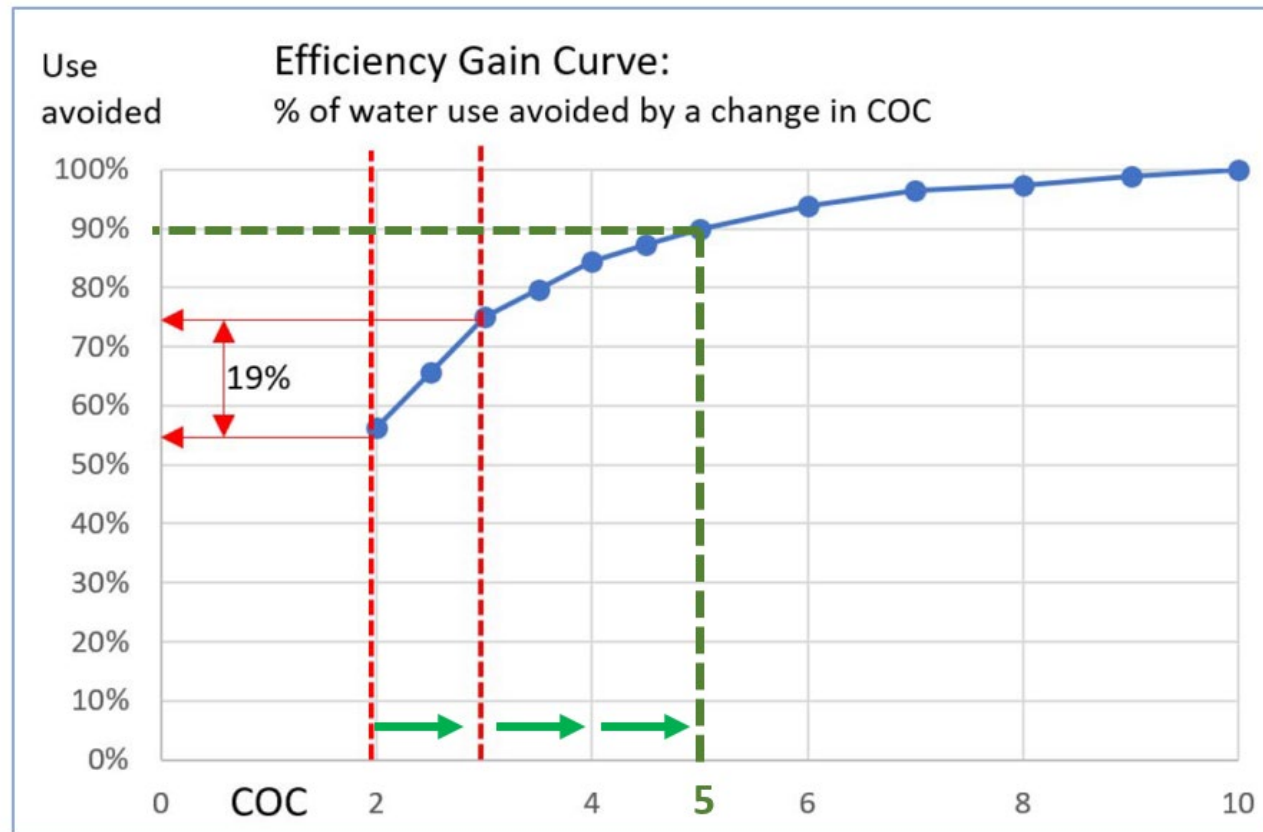


**Cooling**



# Cooling

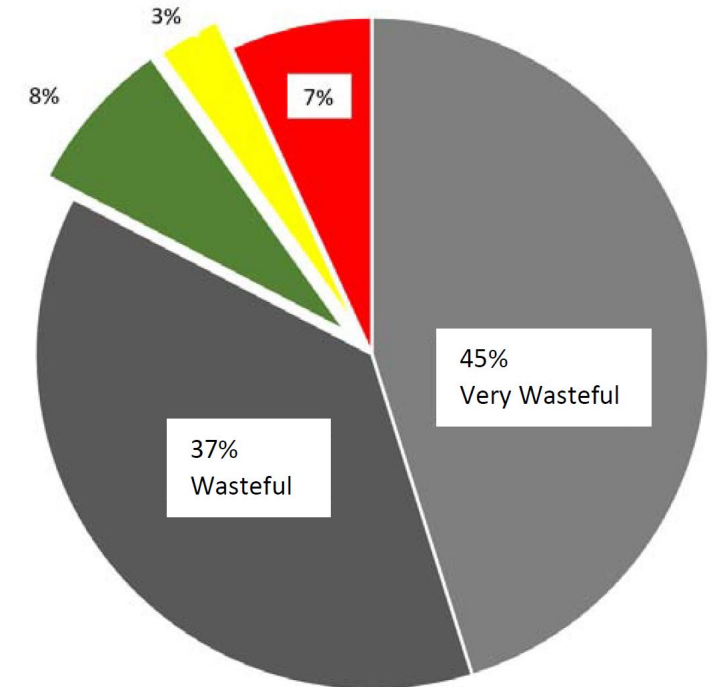
## Actual vs Maximum COC (Cycles of Concentration)



## Research Findings

### 2,477 Service Visit Analyzed

EFFICIENT	AT RISK	ACTIVE HARM
85% to 99%	100% to 120%	OVER 120%
186	75	169
8%	3%	7%



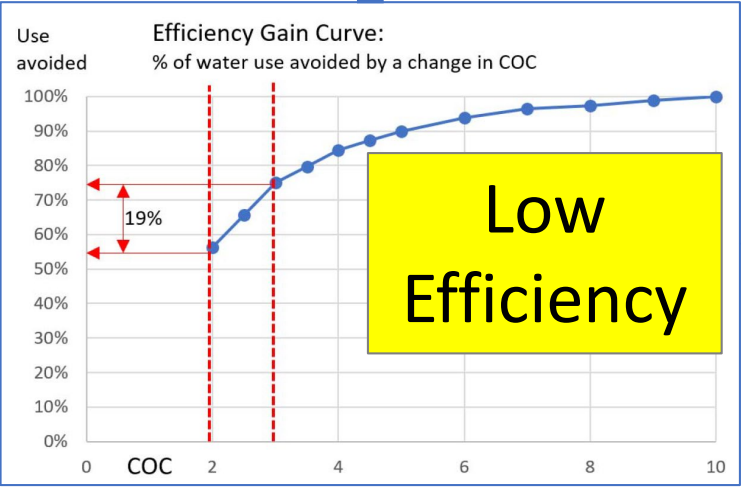
# Evaporative Cooling Problem Loop



Unnoticed Problems



Cause Damage!



# Solution: Break the problem loop

## 1

### Identify problems and fix quickly

1. **Measurement:** spot problems in real time/ fix
2. **SOP:** Integrate “what to watch habits”

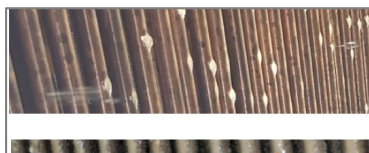
#### Control



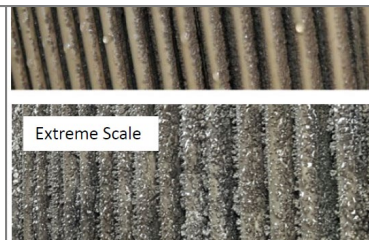
Unnoticed  
problems



#### Avoid



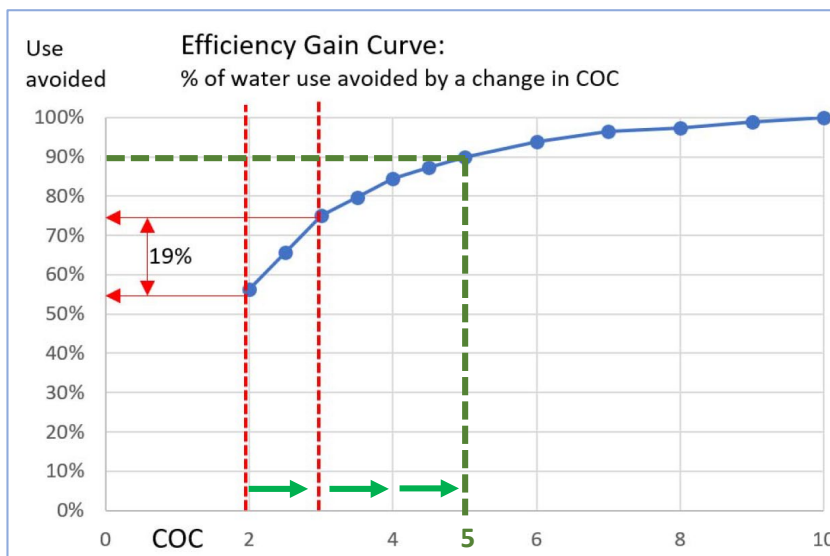
Asset  
Damage



## 2

### Nudge toward optimal efficiency

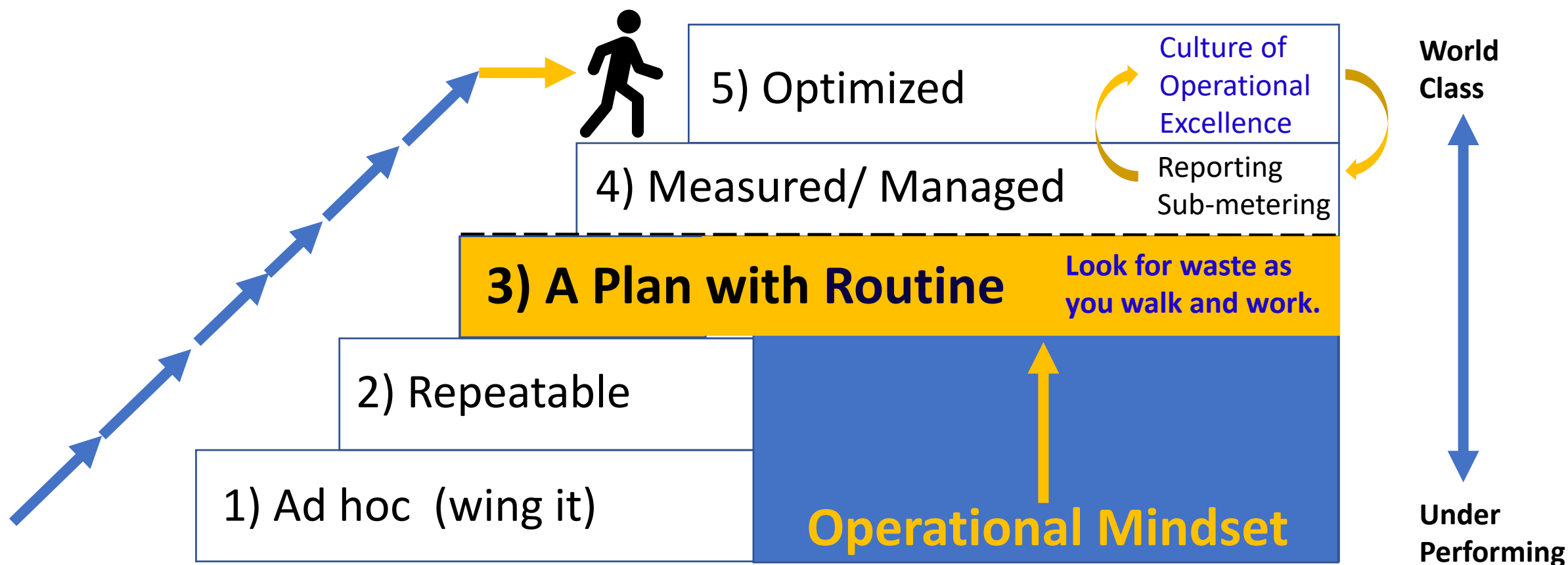
1. Identify Optimal Efficiency “Max COC”
2. Compare actual COC to Optimal
3. Document rationale, test, LSI, etc.



**Result:** protect assets from damage while eliminating waste from unnoticed problems and lower operational efficiency.

# Outside/ Inside/ Cooling Formula:

**Plan to** make water efficiency as routine as recycling

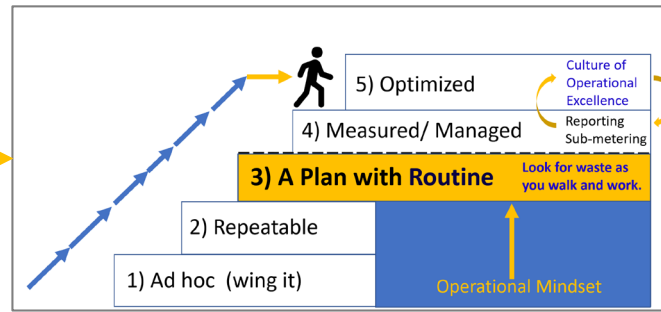


# City/ Org Formula:

**Plan to** make water efficiency as routine as recycling

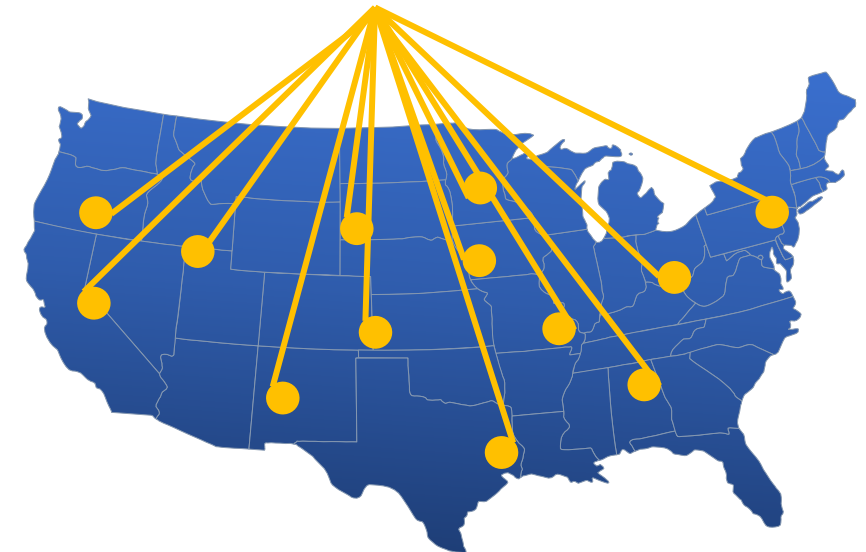


Property Level  
Success



Successful Cities  
& Organizations

Sustainable Success







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[mimirwater.com](http://mimirwater.com)

- End -

## Stump the Chumps Q&A

### **ABOUT Mimir Water:**

- Water Auditor Training
- Full CII Water Efficiency Programs for Cities and Large Organizations.