

Integrating Risk, Resilience and Affordability in Asset Replacement Financial Planning

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Integrating Risk, Resilience and Affordability in your Financial Planning for Asset Replacement

We are going to talk about:

- An effective and practical Strategic Replacement Financial Strategy,
- How this incorporates resiliency, flexibility and affordability, and
- How this helps with storytelling as an effective means to communicate your asset management message – the 'coffee shop' principal



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**NORTH
SALT SPRING
WATERWORKS
DISTRICT**

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- Remember

Use as our base the AMBC Best Practice



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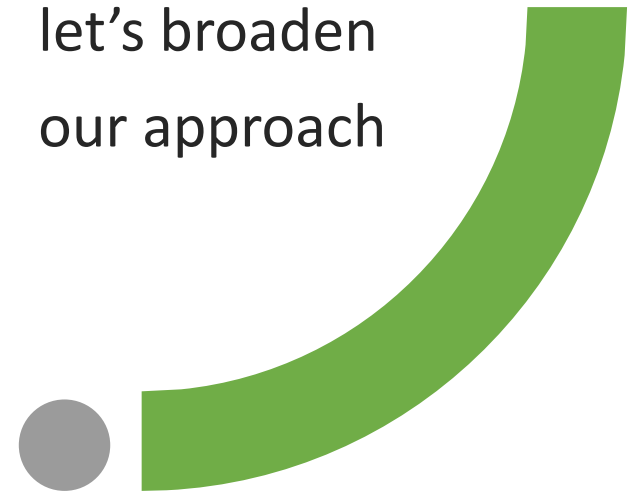
'Let's keep taxes low'

Or maybe.....

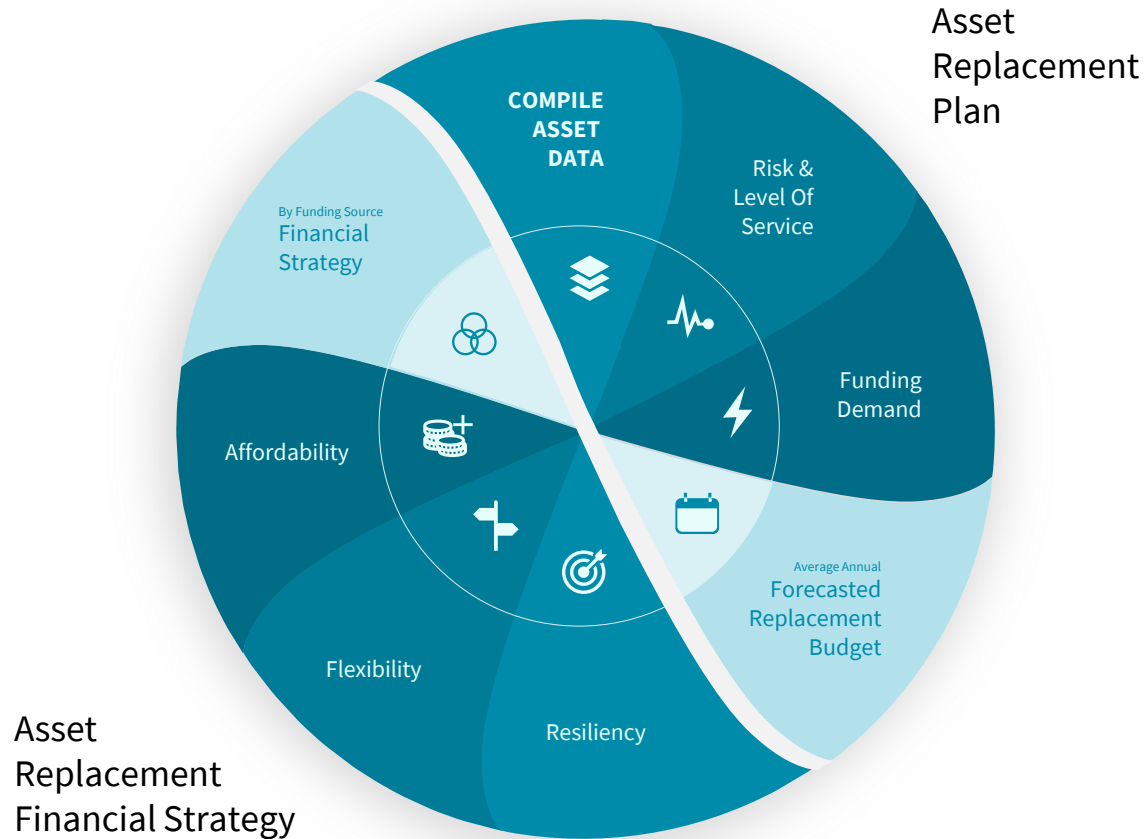
'Let's keep asset healthy'

- Then

let's broaden
our approach



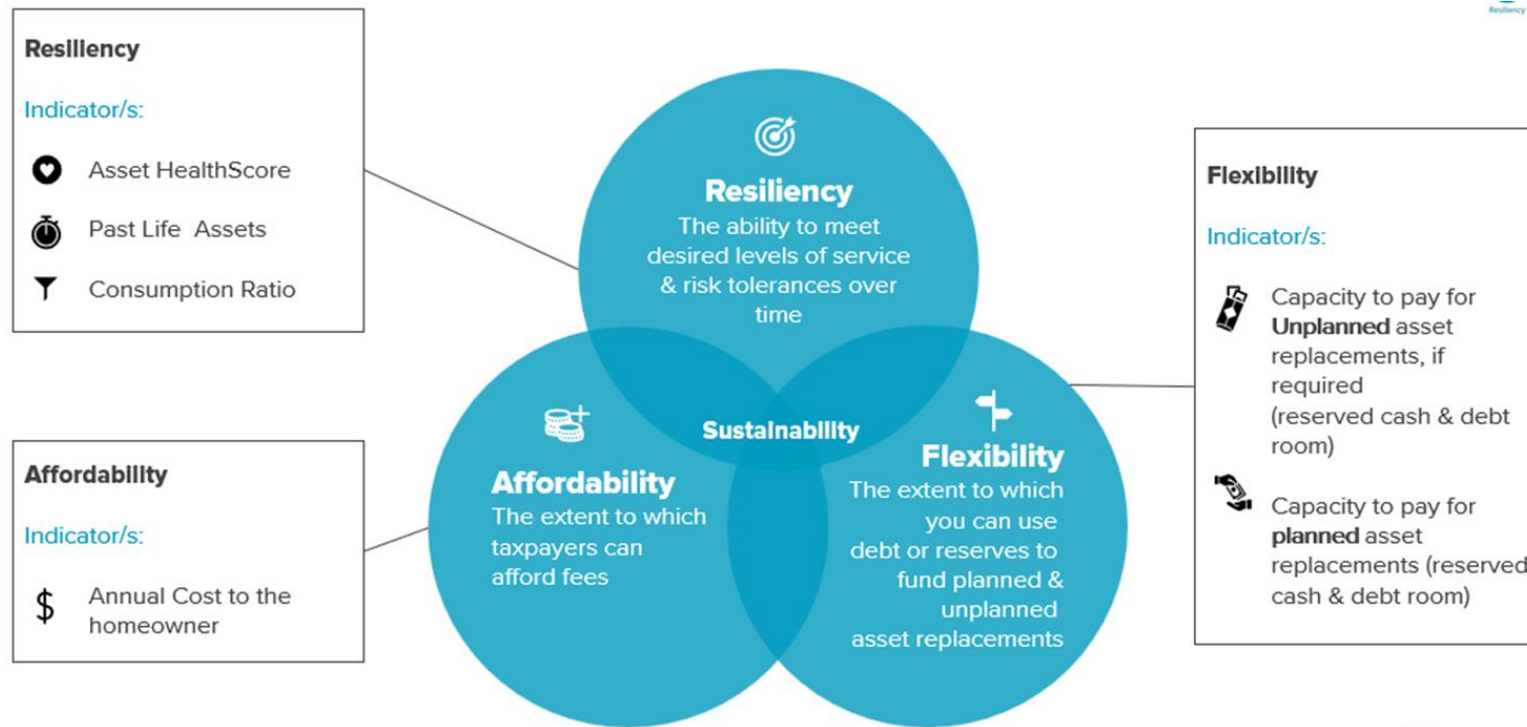
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- Now layer on Resiliency, Flexibility and Affordability



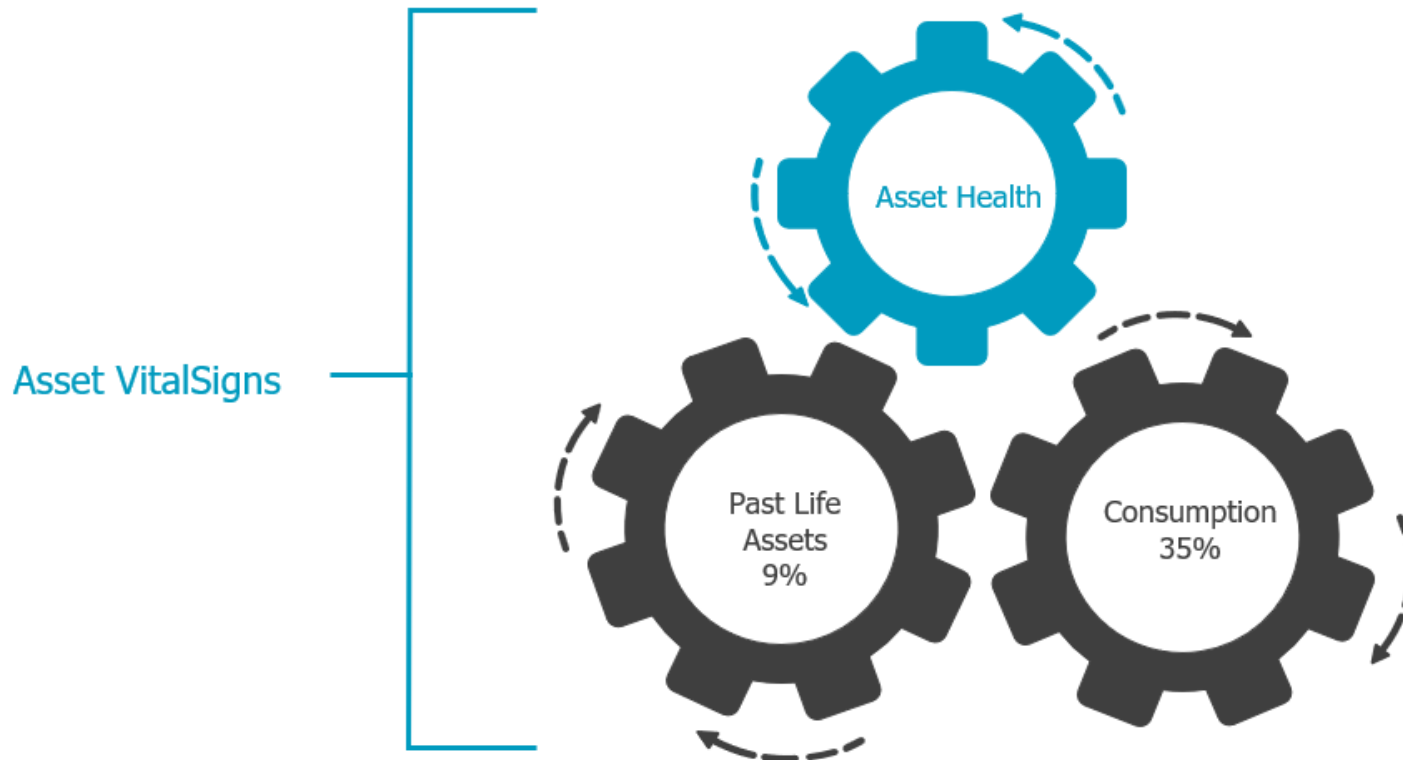
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- Now layer on Resiliency, Flexibility and Affordability

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Resiliency - Risk and Level of Service Performance Measures



- Asset Health

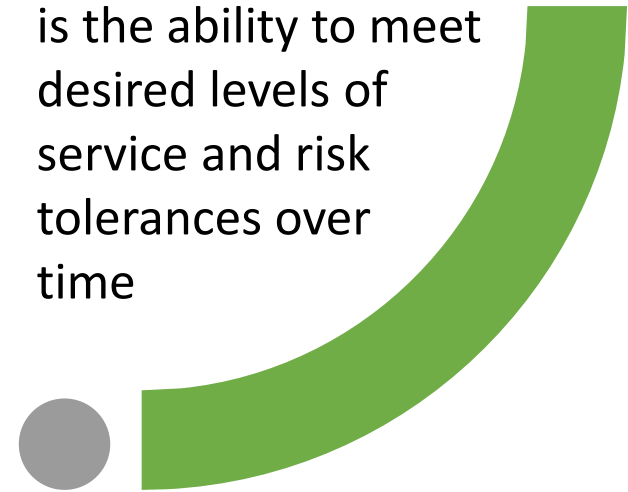
Use past life and consumption rates as proxy for risk



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Sustainable Service Delivery Score				
Measure that represents the relative quality & reliability that is desired from the service.				
ASSET	SERVICE DELIVERY SCORE			
Category	Risk	LOS	SD Score	Category
Pump Stations	2	5	11	MEDIUM
Distribution System	4	5	18	HIGH
Reservoir	4	5	18	HIGH
Fleet	2	3	6	LOW
Water Treatment Plant	5	5	22	HIGH

- **Resiliency** is the ability to meet desired levels of service and risk tolerances over time



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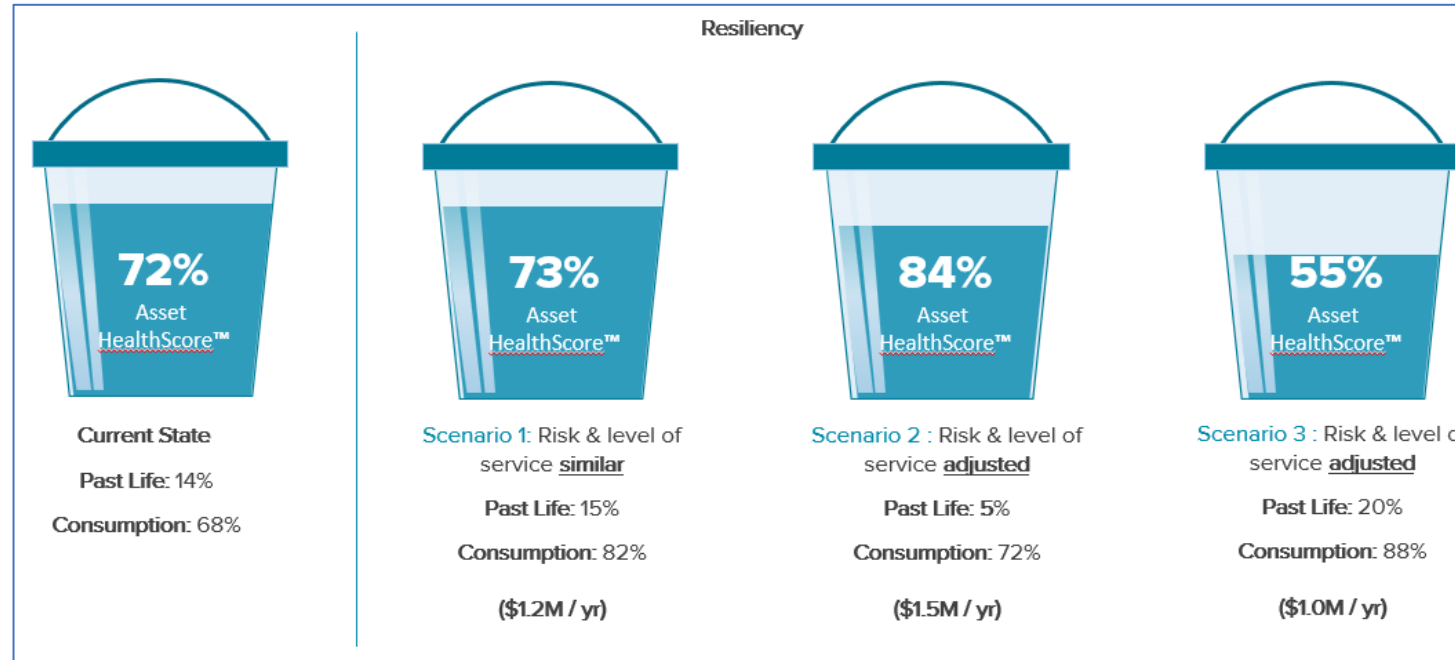
Asset	SD Category	Scenario 1	Scenario 2	Scenario 3
Pump Station	MEDIUM	20%	10%	25%
Distribution System	HIGH	15%	5%	20%
Reservoir	HIGH	15%	5%	20%
Fleet	LOW	25%	15%	30%
Water Treatment Plant	HIGH	15%	5%	20%

- Resiliency

Turn that into risk tolerance scenarios by using past life asset proportions



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- Resiliency

Next turn those risk tolerance profiles into scenarios



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Unplanned



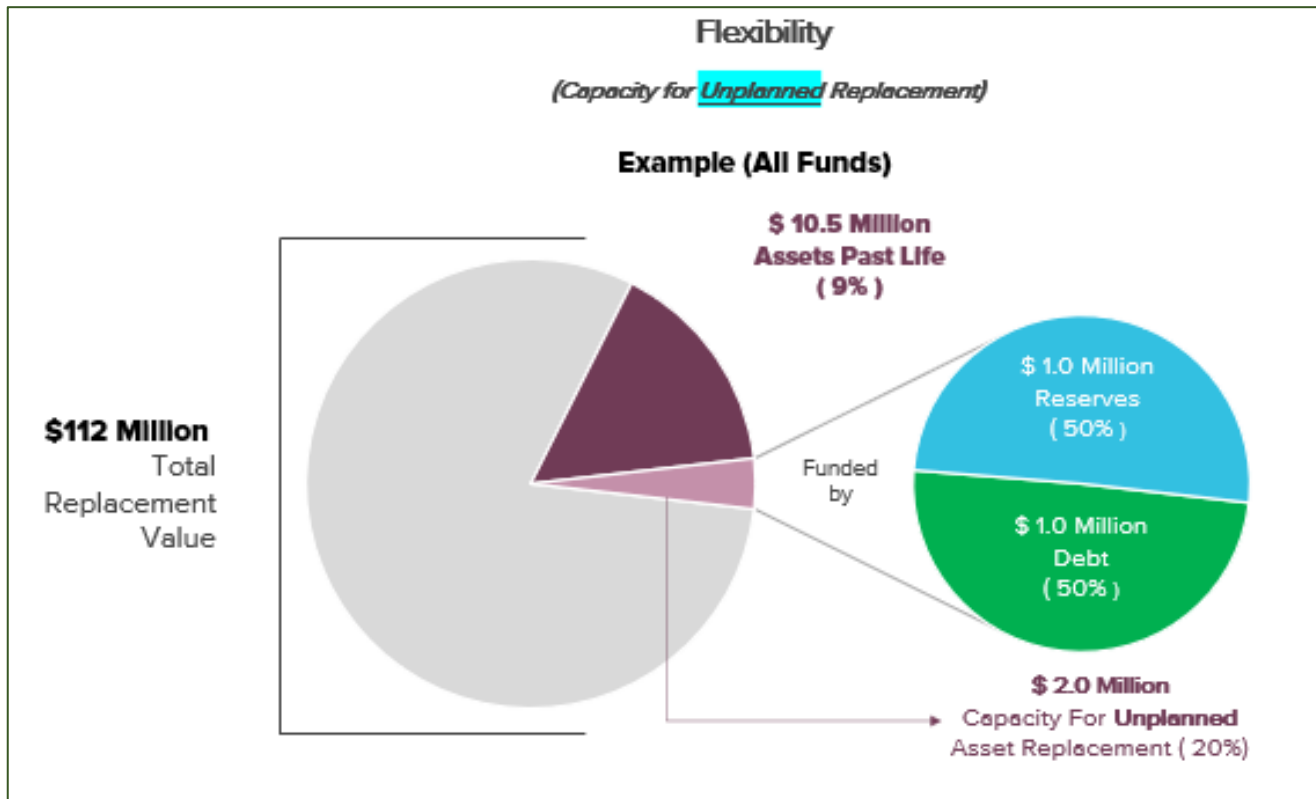
Planned

- **Flexibility**

is how you use debt or reserves to fund planned and unplanned asset replacements

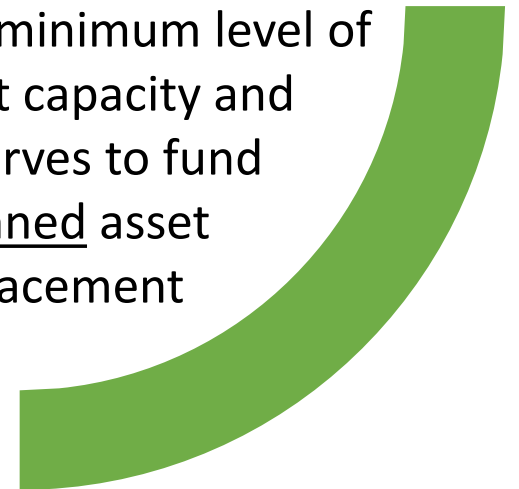


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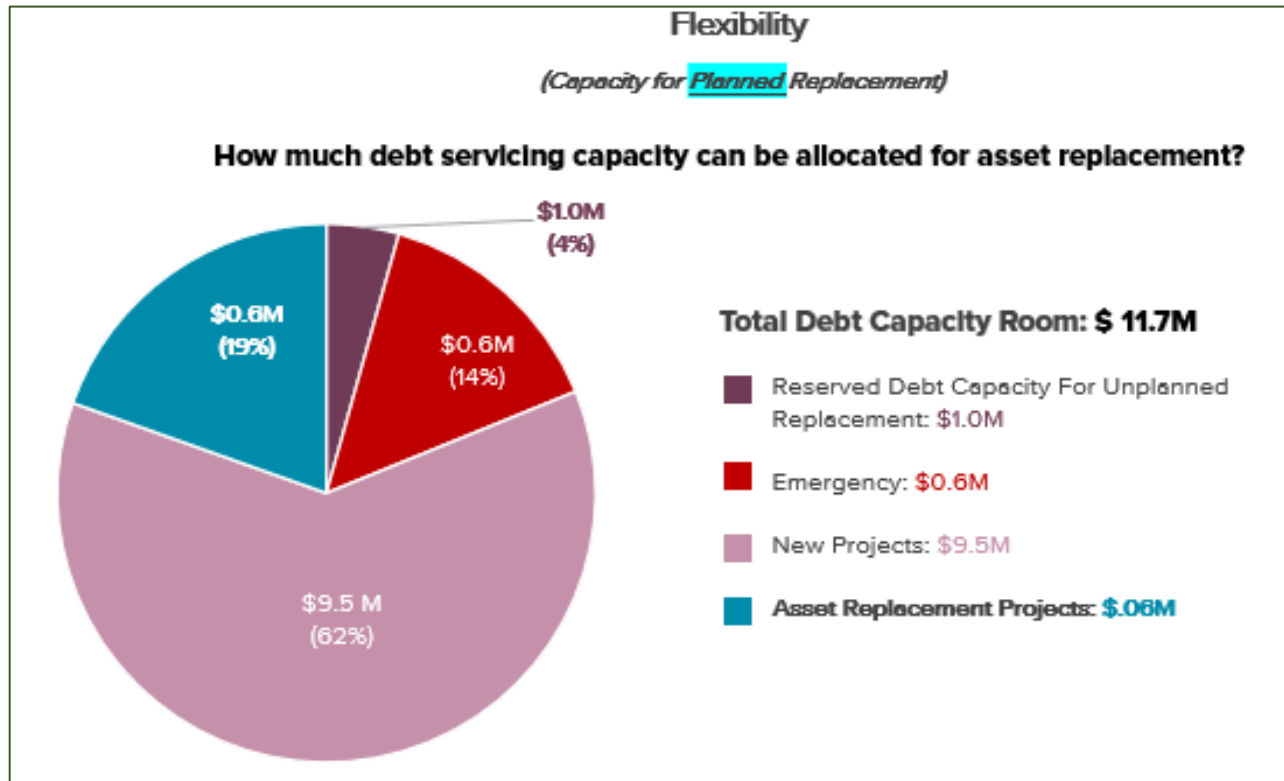


- **Flexibility**

is a minimum level of debt capacity and reserves to fund planned asset replacement

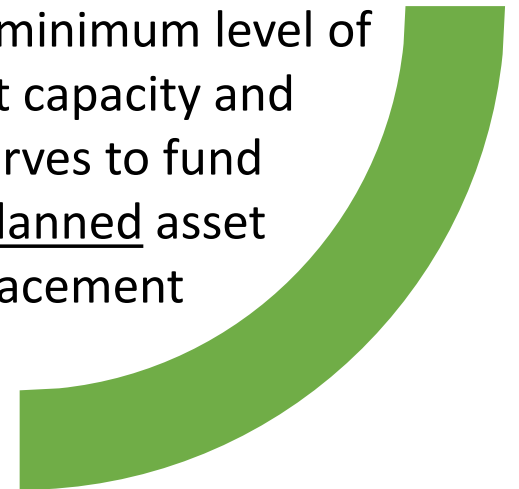


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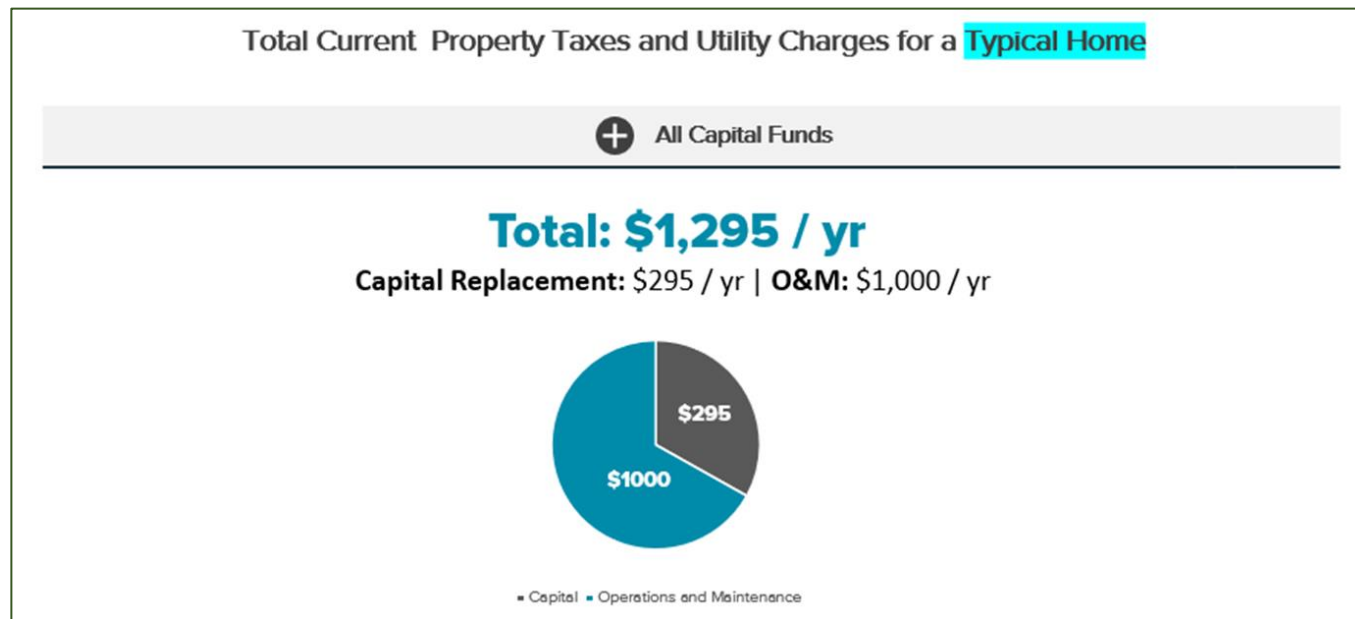


- **Flexibility**

is a minimum level of debt capacity and reserves to fund unplanned asset replacement

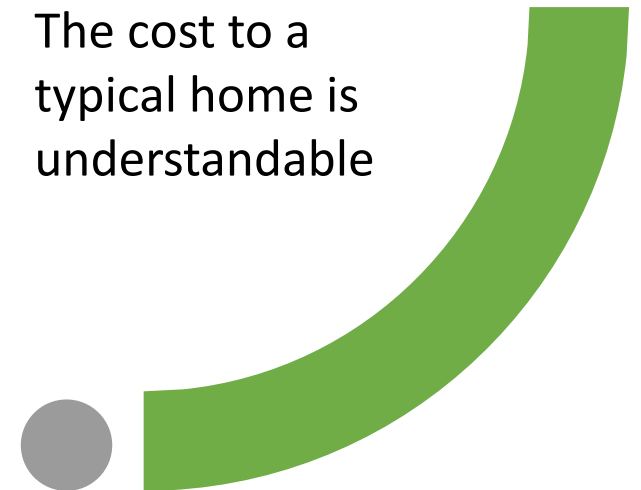


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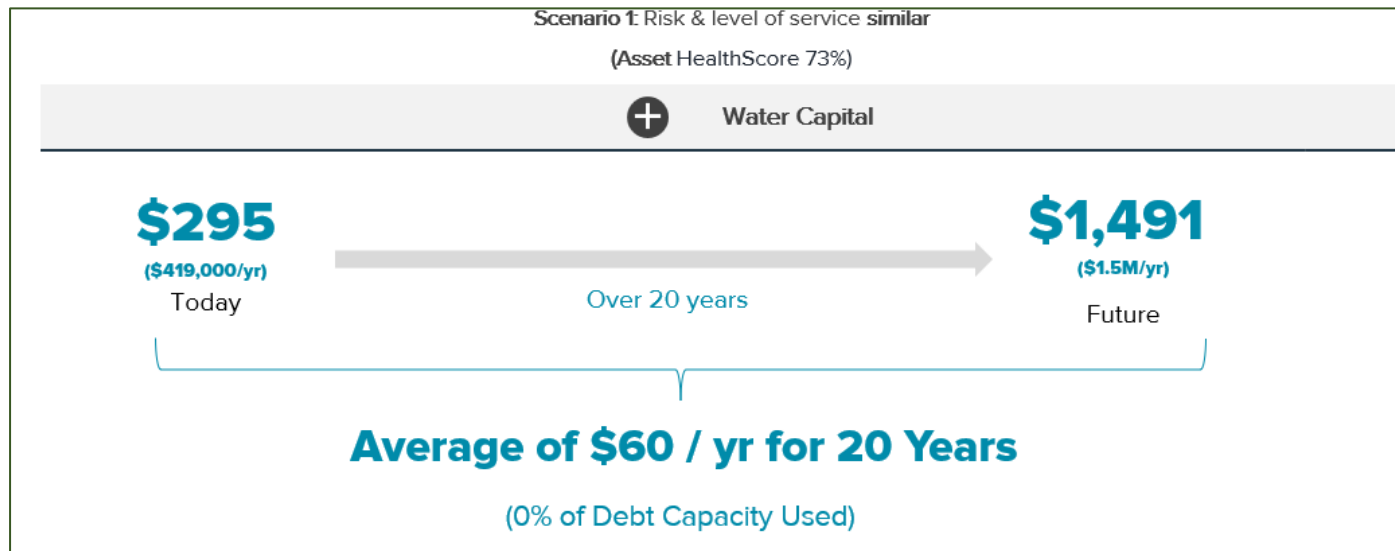


- **Affordability**

The cost to a typical home is understandable



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- **Affordability**

How will the cost to a typical home change over time?

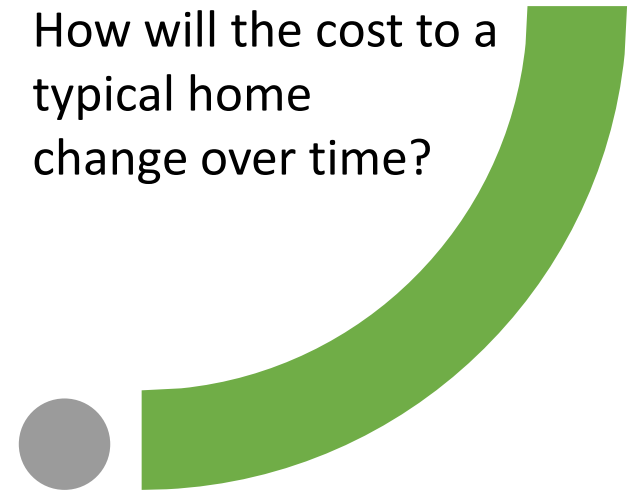


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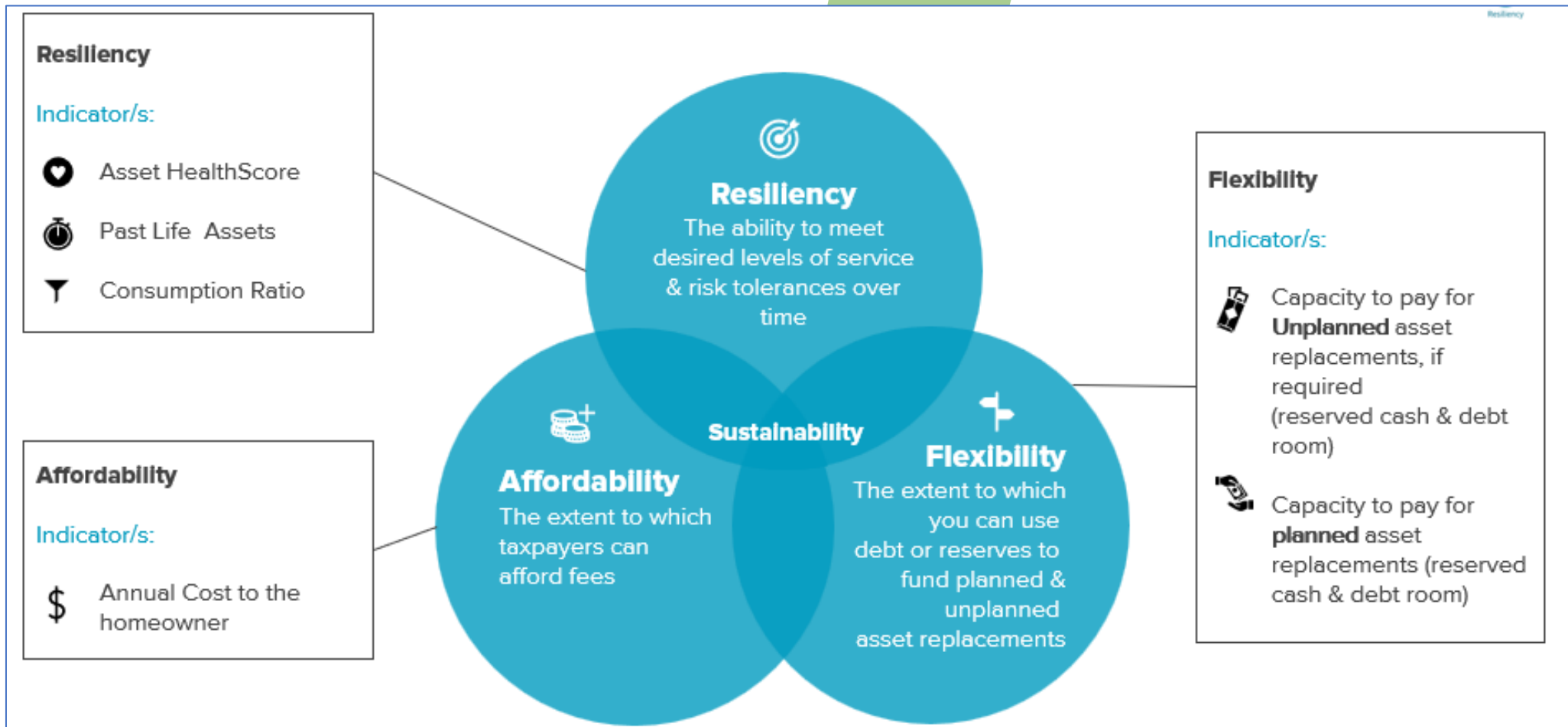
Summary			
Scenario Name	Resiliency (Asset VitalSigns)	Affordability (Annual Cost)	Flexibility (Debt)
 Scenario 1	Target HealthScore: 73%	Average of \$60/yr for 20 years \$295/yr Today \$1,491/yr Future	0% of Debt Capacity used
 Scenario 2	Target HealthScore: 84%	Average of \$44/yr for 20 years \$295/yr Today \$1,184/yr Future	0% of Debt Capacity Used
 Scenario 3:	Target HealthScore: 55%	Average of \$35/yr for 20 years \$295/yr Today \$995/yr Future	0% of Debt Capacity used

- **Affordability**

How will the cost to a typical home change over time?



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1. **Affordability:** Always look to phase in cost increases over the longest period possible to smooth the financial impacts to the taxpayer
2. **Resiliency:** Stay within target Asset Health Score
3. **Flexibility:**
 - a) **Unplanned Asset Replacement**
 1. Keep a minimum reserve level over planning period based equal to a portion of the assets Past life their life
 2. Maintain debt capacity over planning period equal to a portion of the assets past their life
 3. If reserves is below the minimum level, save until the minimum level is met
 - b) **Planned Asset Replacement**
 1. Use a mix of reserves and debt to smooth out tax impacts over time while meeting Asset Health targets
 2. Reserves will be used first and then debt will be used as needed

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- **Storytelling**

Think about the
coffee shop....



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Storytelling - Make it Real - Provide Context

- **a measure of resiliency** - an *Asset Health or Asset Condition Report Card*: what condition are assets in, how consumed are they and how many are past useful life? What is the trend forward?
- **a risk profile** – what risk of failure or breakdown are we willing to accept?
- **a connection to service** - what service level do we expect from these assets?
- **a measure of flexibility** - *Financial Report Card*: funding level, funding gap, reserves and debt capacity - how financially flexible and resilient are we?
- **a measure of affordability** - Separate out the annual cost to a typical home.

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Questions

