

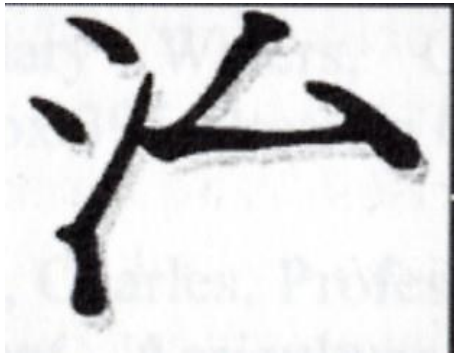


safma

Conference & Exhibition
21-22 August 2018

Anthony Turton

Water as a Business Risk



This is the Chinese symbol for a “river”



... And this is the symbol for a “dyke” on a river

Order and stability is something we desire



When combined this symbol means “political order”

Controlling water is the foundation of modern civilization

Source: Priscoli, 2008

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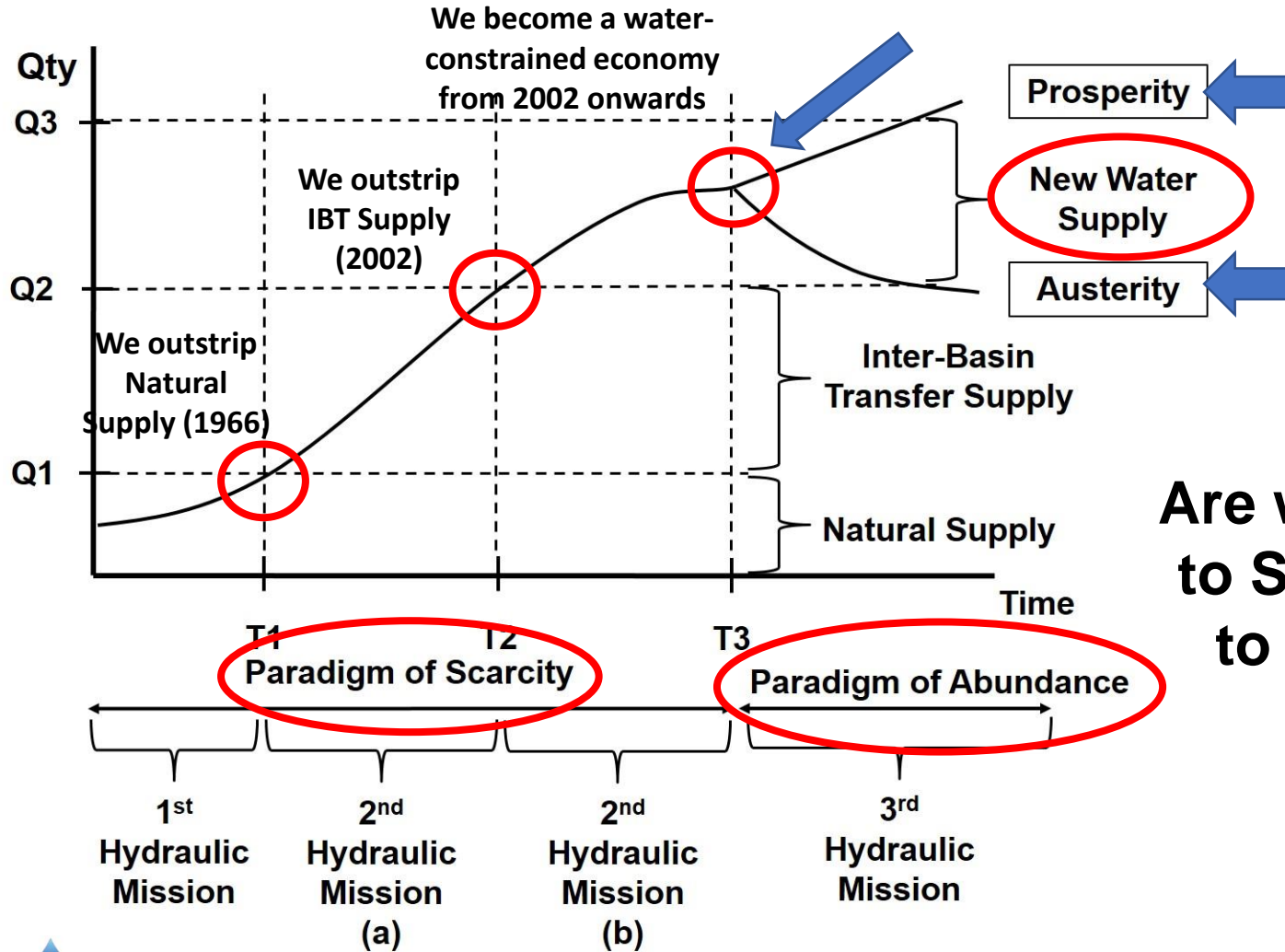


So What?

- **Paradigms** shape the way we think about the world.
- They are an **intellectual scaffold** that orders our logic.
- They **determine the conclusion** by dictating what information we select to answer a question.
- They are **certainly not neutral**.
- They are **generally useful**
- **But** they can also be **dangerous** when we do not know that it is time to change them!



Our Dilemma



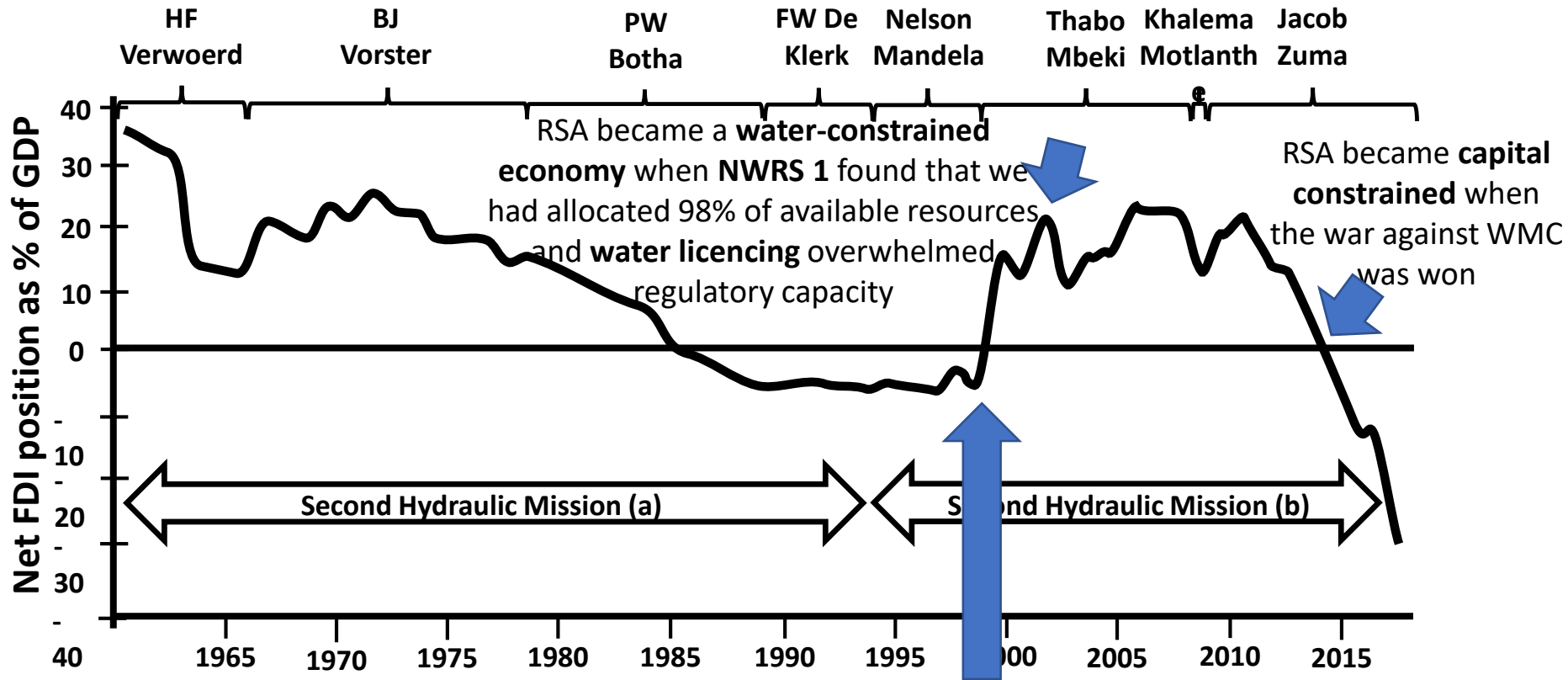
Water as a Flux

Water as a Stock

Are we aiming to Survive or to Thrive?

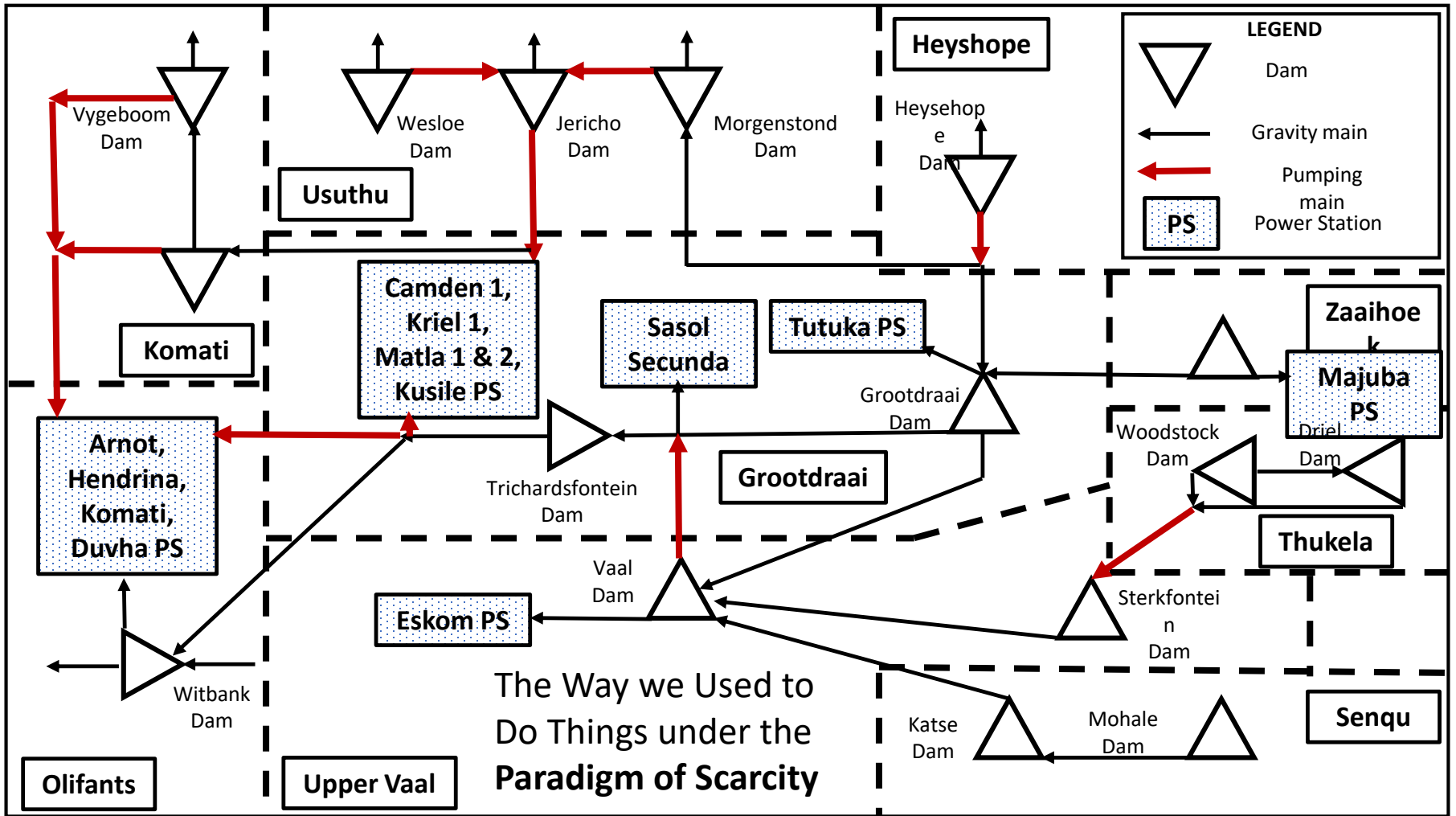


RSA Dilemma – A Water and Capital Constrained Economy



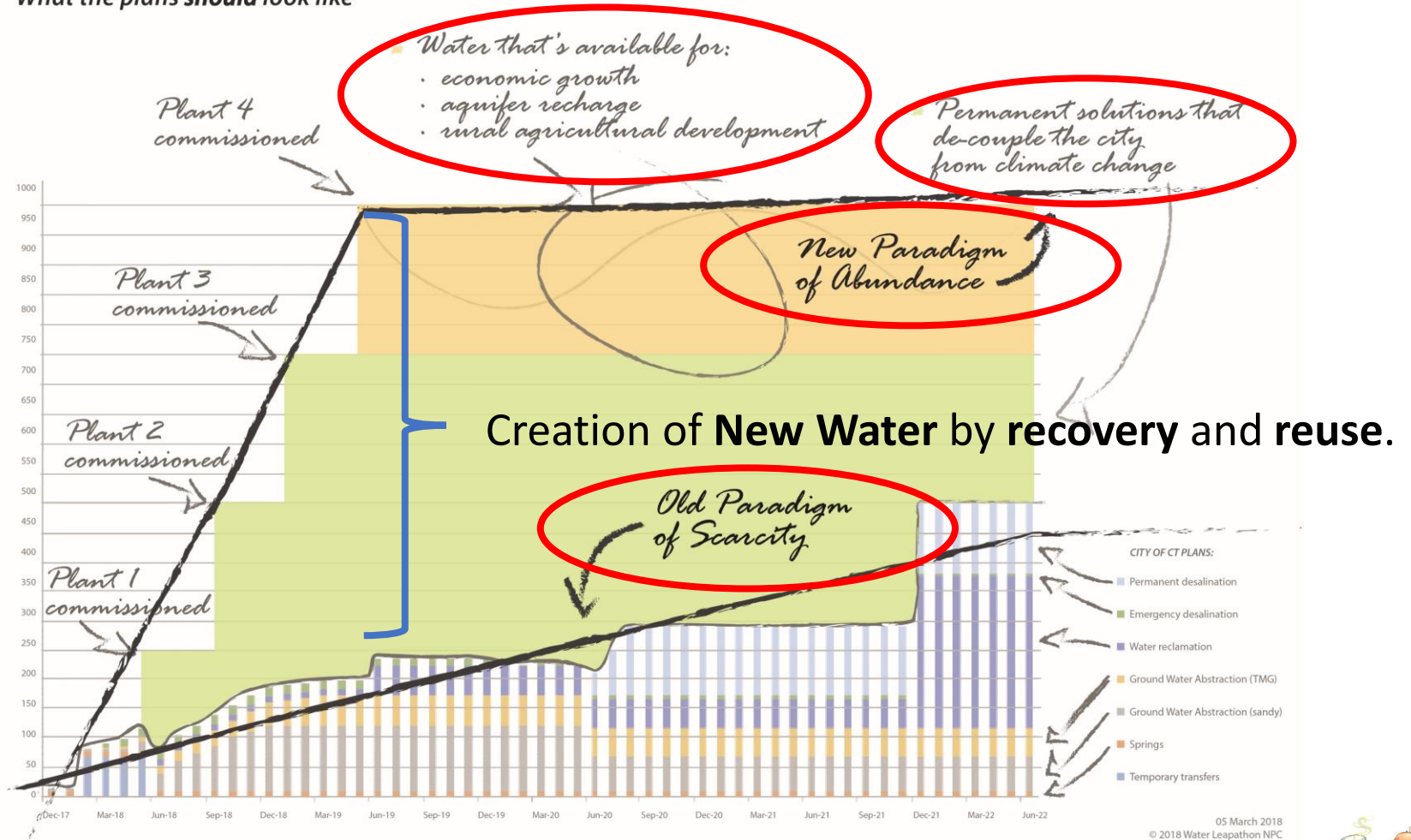
Redrawn from Economists.co.za

The **National Water Act** (1998) nationalized water and mandated the National Water Resource Strategy



The Way we are Going to Do Things under the **New Paradigm of Abundance**

CITY OF CAPE TOWN: WATER AUGMENTATION PLANS What the plans **should** look like



05 March 2018
© 2018 Water Leapathon NPC



	Old Paradigm of Scarcity	New Paradigm of Abundance
Perception of Water	<ul style="list-style-type: none"> * Stock * Finite therefore scarce and limited 	<ul style="list-style-type: none"> * Flux * Infinite because it's a renewable resource
Economy	Linear	Circular
Technology	<ul style="list-style-type: none"> * Dams as principle elements * Master and Owners of Nature through hard engineering and control * Centralization under the state * Single use water at lowest cost * Groundwater managed separately * Desalination avoided as costly 	<ul style="list-style-type: none"> * Recovery plant as principle elements * Nature-Based Solutions (NBS) through softer engineering and partnerships * Decentralization increasingly under private control * Dual Stream Reticulation at variable cost * Aquifer Storage & Recovery (ASR) as key element * Desalination embraced as source of New Water
Capital	<ul style="list-style-type: none"> * Cost to be avoided as much as possible * Limited multipliers because of linear configuration of the economy * Fiscus is the sole source 	<ul style="list-style-type: none"> * Investment to be encouraged as an economic enabler * Many multipliers because of networked nature of the circular economy * PPP's with private capital as new source
Management Structures	<ul style="list-style-type: none"> * Highly centralized under State control * State Owned Enterprises only 	<ul style="list-style-type: none"> * Increasingly decentralized under <u>both</u> private and state control (new markets for solutions e.g. Residential Estates and Facilities Managers) * Special Purpose Vehicles contracted to SOE's but meeting capital risk mitigation requirements



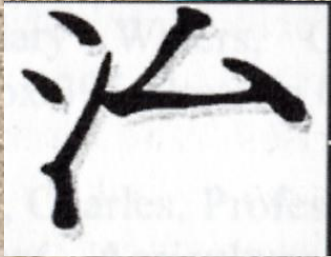
Conclusion

- If we see **water as a stock** then we can never grow our economy more than it already is.
- BUT if we see **water as a FLUX** then it is an infinitely renewable resource.
- Managed as a **FLUX water** can become the foundation of a **rejuvenated national economy**.
- Managed as a **STOCK then business risk will grow** because of systemic failure.
- We need a rational debate among professionals.
- **Because it is dangerous** when we do not know that it is time to change our paradigm!

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**Water + Control
= Social Stability**



Thank You

<http://www.anthonyturton.com>
<http://www.shakinghandswithbilly.com>



