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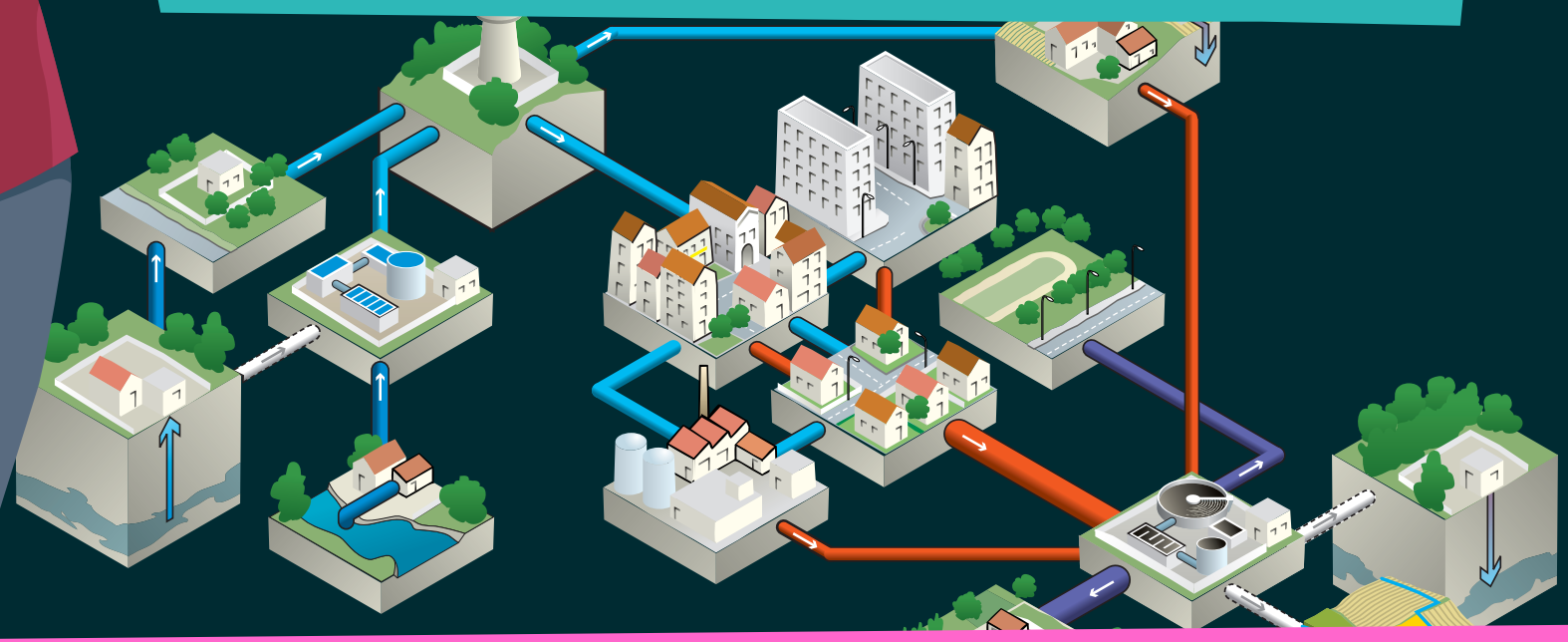
In 2014, California adopted the Sustainable Groundwater Management Act, a statewide framework to help protect groundwater resources over the long term.

In the Water Scarce US West Coast, any kind of regulation of this type inevitably means water restrictions.

We have to cut back. How can we do that in the least painful way possible? That's by taking the scarce resource and using it in the most efficient way amongst those.



This could be through optimal water allocations so that everyone gets the best possible amount of water.

In theory, that could maximize the value of water to society. But it's unlikely that the regulator would get to a perfectly right fit for each individual person.

(DON'T!)
WASTE WATER

To refine the allocation, the regulator could hence play with an additional factor: the water price.

But this only works if the price of water influences the behavior of users!

We have an intuition that if the price goes up, the amount you'll demand of any good goes down.

That's what defines price elasticity: the ratio of change in demand divided by the difference in price.

How elastic is the water demand? Or asked differently:

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If the water price increased by 10%, how much consumption would go down in percentage terms?

Ellen's research in the Coachella valley shows that it would only go down by a maximum of 2% in this scenario, making water an inelastic good.

Yet, there's an additional parameter to consider:

Elasticity varies across users, space and time.

That can build for an incentive to trade water and benefit from trading.

Water Trading would make the transition to a restricted environment easier. That's why economists see markets as a solution to achieve a water allocation that's best for everyone!

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Yes, markets are imperfect by nature. And yes, different bodies may be able to influence prices.

(We've seen a terrible example by S4E6 with Scott Hamilton on the Murray Darling River Basin in Australia.)

But as Ellen's research and proposed conditions demonstrate:

They can still be better than the alternative where you don't have any trade!

We also covered:

- How if you've invested in a crop, a bottom-line calculation enables you to determine the threshold at which it's profitable to stop watering it and let it die
- How research happening in universities shall be leveraged into practical knowledge
- Which levers can influence a water market, and how pertinent that influence actually is in the Californian example
- How the groundwater tariffs in place in Coachella enable to artificially replenish the water table
- How agricultural and urban users have slightly different behaviors when it comes to water and how to leverage it
- How water market experiments are rolled out, and who shall best be participating in this trading
- How to measure the (positive) impact of a water market compared with the status quo
- The specificities of Water Management in Coachella, resemblances, and differences with Israel & Australia, farmers doing what's best for business, why groundwater is better suited to trading than surface water... and much more!

Don't miss a single bite: head over to dww.show!