

Blue, green and brown for a brighter future



The world of water, through the eyes of GWI publisher [Christopher Gasson](#)

My big takeaway from last week's GWI Networks webinar on Blue-Green Infrastructure was a remark made by Enrique Zaldivar, the general manager of LA Sanitation & Environment. "We have taken the liberty to expand that bilateral relationship into a trilateral relationship of not just blue-green, but blue, green and brown. It's a trinity of water, vegetation, and soil."

It is a great point, and one which I think we are going to see reflected in the direction of the sustainability debate in the water sector in the coming years. The water-soil nexus seems to be moving up the agenda as the water-energy nexus moves down.

Water and energy have become less of a talking point because the growth of renewable energy has reduced the cogency of the argument that we cannot increase our water resources without increasing our energy resources, and vice versa. Solar desalination now looks set to be the norm in the most water-scarce regions of the world, and water consumption in power production is now falling steadily in light of the trend from coal to gas and renewables.

Meanwhile, flood resilience and ecosystem protection seem to be growing concerns, and the interrelationship between water and soil plays a key role in shaping the outcomes, particularly in the context of the growing pressures on soil from agriculture. Food needs water and nutrients in the soil to grow, but nutrients pollute water, causing dead zones in lakes and oceans. Water erodes soil, but also replenishes it. Soil and vegetation can create natural resistance to the power of water in a flood event.

"Soil is not new," Zaldivar concluded, "but we have finally recognized that it is equally important in this relationship." It is another way of saying that you can't have the green and blue without the brown.

What does this mean for the water industry?

The first thing I would say is that it is another sign that we have probably passed 'peak' concrete. It has significant implications for the engineering sector. It means that firms will find themselves competing not on the basis of their design expertise, but on their understanding of how they can get ecosystems to do more of the work.

Secondly, on the technology side, I think it means we will see investment in shortening the nutrient cycle. That means finding more cost-effective ways of removing phosphates and nitrates from wastewater and repurposing them as fertilisers. For example, earlier today Mezt won the [Blue Tulip Award](#) for water and food innovation. More broadly, we could see a greater appreciation of the value of sewage sludge.

Thirdly, I think it will contribute to the ongoing change in the perception of the water industry. 20 years ago people talked about dull boring utilities. With that kind of reputation, it was difficult to attract the best talent to the sector. This transition from grey to blue-green and brown is suddenly inspiring for young people looking for a brighter future.

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