

Question Details

#	Question	Answer	Answer Name
1	My question: What about DTs of WRRFs? I'm especially keen to connect with people active in this area in Australia. I'm already connected globally through IWA MIA (Modelling and Integrated Assessment), but would like to contribute to implementations in Australia. The objective? Improving performance of WRRFs, but also reducing costs and reducing GHG emissions (CO₂, CH₄, N₂O), so multi-objective real-time control (data-based? physics-based? more likely hybrid). Can also link collection systems and WRRFs.	Thanks for sharing this—it aligns closely with several of the challenges we are hearing from water utilities. Your observation about data is particularly important. In practice, adoption tends to stall when a digital-twin initiative begins as an attempt to reproduce an entire facility, rather than starting with a clearly defined operational decision and the data needed to support it. From an Autodesk Water Infrastructure perspective, our current focus spans hydraulic modelling, operational analytics and asset-management workflows. Solutions such as InfoWorks ICM and the Info360 platform can bring together models, SCADA or historian data, laboratory results and operational information to support monitoring, scenario analysis, alerting and performance improvement across networks and treatment facilities. For WRRFs, we see the most practical near-term opportunities in focused applications such as: aeration, pumping and chemical-use efficiency, wet-weather and influent-load forecasting, early identification of abnormal process behaviour, compliance and operational reporting, creating a reliable data foundation for more advanced process and greenhouse-gas modelling. We would not suggest that software alone resolves the challenge of modelling CO₂, CH₄ and N₂O. Specialist process knowledge, appropriate emissions models, instrumentation and reliable operating data are all essential. However, there is a significant opportunity to make those models more operationally useful by connecting them to a common, continuously updated data and analytics environment. Your work would make this a particularly valuable conversation. It would be useful to explore what a small number of credible Australian demonstration projects could look like—each centred on a measurable operational and emissions outcome rather than on delivering a “complete” digital twin from day one. I’d be very interested in continuing the discussion and connecting you with relevant colleagues and others working in this area in Australia. Best regards, linkedin.com/in/des-ceronio	Des Ceronio
2	How do you best guide the conversation around viewing the digital twin/hydraulic model/dashboard as its own “Asset” which requires a similar level of understanding for Likelihood and Consequence, Risk impacts, maintenance time/cost, etc...?	live answered	Eland Afuang