



Australian Government



Inspector-
General of
Water
Compliance

WATER'S EDGE: TRANSCRIPT

S3, Episode 8: A deep dive into ACT's water with the regulatory leaders' forum

Speaker 1: *Water's Edge* podcast acknowledges the traditional owners of country throughout the Murray-Darling Basin and Australia and recognises the continuing connection to lands, waters, and community.

Speaker: Coming up in this episode of *Water's Edge*:

AD: Decisionmakers from across the Murray-Darling Basin unite in Canberra, at the Inspector-General's regulatory leaders' forum.

TG: This is a great opportunity to bring them together to share best practice ideas, to learn from each other, but also to get more consistency about the application of water theft, regulatory practices, and other compliance measures more consistent across the Basin, which was one of the things that the community were crying out for.

AD: It's keeping the balance with water infrastructure and the environment at Canberra's Cotter Dam.

ME: It's quite unique in Australia, in terms of infrastructure and water security and balancing that with environmental management. We actually are lucky that we have a dam here. Because of the dam, we actually have protected an endangered species in the Macquarie Perch.

AD: And, how Australia's largest inland sewage plant proves every drop of water is valuable.

PB: We get the sewage coming in, we remove the solids, we take out the nutrients, and then we deal with the pathogens. It's got a few novel elements that are different to any other wastewater treatment plant in Australia.

Speaker: You are listening to *Water's Edge* with your host, Alison Dance.

AD: Before the Inspector-General of Water Compliance existed, the leaders of water regulatory bodies in each jurisdiction of the Murray-Darling Basin had never met. That's why the Inspector-General of Water Compliance, the Honourable Troy Grant, started the regulatory leaders' forum.

AD: This is a great opportunity to bring them together to share best practice ideas, to learn from each other, but also to get more consistency about the application of water theft, regulatory practices and other compliance measures more consistent across the basin, which was one of the things that the community were crying out for. There are a couple elements to that about 'fair' and what a level playing field exists for water users, but also then when people are caught for doing the wrong thing about the harmonisation or the equality in the punishments handed down. And there's a long way to go because the

jurisdictions operate on very different penalty schemes and we're limited in what we can do to influence that because that involves everything from traffic tickets to parking tickets through to water offense provisions as well. So, we've designed collectively and cooperatively together a couple of compliance frameworks and metering report cards to give confidence to the community about what the regulatory leaders are doing in their field, state by state, so they can do some comparisons and understand the good work that's happening on ground.

AD: For this RLF meeting, the leaders are seeing that good work happening on the ground in the ACT. Canberra is the biggest city in the Murray-Darling Basin and home to around 470,000 people. We are busing out to Cotter Dam. Dr Su Wild-River is giving an overview of Canberra's water. At this meeting, she's the ACT RLF delegate, and from the ACT Environmental Protection Authority.

SWR: The water regulation effort in the ACT is tiny compared with the other jurisdictions. We are, of course, the only jurisdiction entirely within the Murray-Darling Basin.

AD: Does Su sound familiar? That's because she's featured in *Water's Edge* before, on season two. The episode called, 'Working Collaboratively: how the ACT is helping Basin Water Management to be more collaborative'. It's also where you'll find out why her name is Wild River.

Speaker: Subscribe, like, or follow wherever you get your podcasts, so you never miss an episode. And give a rating to help others join the conversation.

AD: Canberra's in the headwater of the Murrumbidgee catchment and, in fact, the Territory was designed with water in mind, having almost all of its borders shaped by its water resources. Cotter Reservoir is a big player in Canberra's water supply and its capacity is thanks to the dam wall. The original dam was built in 1915 at 18.6m high. It was raised in 1951 to 28.5m and enlarged again between 2009 and 2013. Now, it has an 83m high, roller-compacted concrete dam wall, 125m downstream from the original dam wall. This means the holding capacity of the reservoir jumped from 4 gigalitres to 76. That's enough to fill the MCG to its brim 76 times. But how does this balance with the environment?

TC: We run what's called a 'below dams monitoring program'.

AD: Icon Water manages the dam, and Tim Chaseling is a leader within its environment and sustainability branch. He's presenting to the RLF from a lookout at Cotter Reservoir.

TC: In spring and autumn every year, we undertake ecological monitoring for macroinvertebrates, the physical chemical water properties, phytoplankton, and another program looks at some of the fish like the two-spine black fish and Murray Cod and so forth. One of the things, by default, in terms of infrastructure and water security and balancing that with environmental management, is we are actually lucky that we have a dam here. Because of the dam, we actually have protected an endangered species, in the Macquarie Perch. It's quite unique in Australia. It's probably one of the last viable self-populating populations of Macquarie Perch. The reason we're lucky is because on this side of the dam, you've got EHN virus, carried by Redfin particularly, and native species like the Macquarie Perch are particularly susceptible to that virus. So, EHN virus on this side

of the damn wall - fingers crossed, legs crossed, touch wood, it doesn't go into the other side of the dam wall.

AD: It's more than good luck, though. There's a fish management plan in place. It includes an annual stakeholder meeting, covering off environmental flow and spawning, exotic species or predator numbers, and dissolved oxygen levels.

TC: One of the concerns we had was that when you build a dam, it inundates quite quickly, and potentially your dissolved oxygen [DO] levels go down. So, we have buoys out in the dam, and we get a text message as soon as they hit the certain DO level, and we've got a management plan that then can be enacted.

Speaker 1: You are listening to *Water's Edge*. Thanks for being part of the conversation.

AD: The ACT essentially exports more water at the northern end than it receives from New South Wales, partly because urban development increases rainfall runoff. But there's another outflow of water from the ACT. Back on the bus, the RLF leaders are winding their way down from the hills of the Cotter catchment, crossing over the Murrumbidgee River, and following it to the lowest geographic point in Canberra - and the last point before it flows into New South Wales. Su, tell us about our final stop.

SWR: In our SDLs, we have a net water take instead of a gross water take. That's because we have the biggest municipal water system in all of the Murray-Darling Basin and the smallest agricultural sector. People drink the water and then it goes back after treatment.

AD: The Lower Molonglo Water Quality Control Centre, again under Icon Water, is the ACT's main wastewater plant. Every day, it recycles an average of 10 million litres of wastewater - that's around four Olympic sized swimming pools worth.

PB: Public perception is a huge, huge deal. So, yes, we do have the best inland sewer treatment plant at the moment as far as performance.

AD: Pat Bacon is the water regulation team manager at the ACT Environmental Protection Authority and explains why there's also a storage dam with capacity for 147 million litres of wastewater - almost 59 Olympic pools.

PB: If there is an overflow event, there are dams here that they can divert the water to. But you're looking at levels that would've been cleaner than the public pool you went to last, you know, through the level of dilution.

AD: But if this is essentially Canberra's drain, how is the water safely returned to the Murrumbidgee River? From a viewing platform, we can see almost a billion dollars' worth of infrastructure in the valley before us - which surprisingly isn't too smelly. Ben Bryant, branch manager, environment and sustainability, at Icon Water, explains.

BB: This is water. It's just water with extra solids in it. It's going back into the system. It's going to New South Wales. You're going to regulate it and use it in the same way. And, when we're making decisions, we're water custodians and it's all options on the table. This is actually going to probably be one of our future source water options. And so, you'll have a lot more of that going through our systems into the future. We've just got to keep

using it over and over and over and over. How we do it, though, is by using physical, chemical and biological processes.

AD: It looks pretty straightforward. Three sections - primary, secondary, and tertiary; 1, 2, 3 - all heading towards the river. The first section looks like a bunch of smaller square pools; the middle, some larger square pools; and the third, a couple of rows of big round pools. There's overhead gangways and pipes running throughout.

BB: The system behind me sounds simple. There's a lot of chemicals going into it and it's resurged five times. So, although it might look like gravity is going on well behind me, it's actually a lot of pumping. And those tanks are 9-12 metres deep. So, primary's really around screenings, dropping out grit, skimming off fats - that sort of thing. Secondary treatment plant is all biological. And then the polishing at the end, before it goes down some cascades, into the river. What we then have is also a Lower Molonglo Biological Monitoring Program.

AD: Does that ring a bell? Tim spoke about a similar program below Cotter Dam. There's one here, too, making sure the environmental impact is acceptable.

BB: We're servicing half a million people's sewage here. That doesn't come for free. It takes a lot of chemicals, salt, energy, other things to meet our standards. But what we do have is this - I've had one of my personal favourite moments here, only a few months ago, down the Molonglo River, when a platypus came up to me, downstream of our discharge point. So, that's super cool. Australia's largest inland sewage treatment plant, with platypus living in the river, at the discharge point. Like, it looks clean. It's beautiful.

AD: Over to the right, away from the pools, is a 9-storey building with a couple of chimneys.

BB: That isn't in any other wastewater treatment plant in Australia. We take out solids - our bio-solids, our sewage sludge, and also our grit - and we heat-treat that. So, that's been since the 1970s. We've taken that sludge and we've heat-treated it in an incinerator to make a product called Agri-Ash. And you go, 'What? You're burning sewage. You guys are so wasteful!' But it's actually a really good design. Basically, the sludge that we have has the embodied energy of brown coal. So, it does pH correction of soil, and it has a lot of good phosphorus in it, too. So, it's a really good surfeit economy story. It's a really good outcome for returning scarce nutrients and it's good for the planet.

AD: A healthy planet is a focus for so many in the water space. Preparing for water demand in the face of a changing climate and population. In the ACT alone, the population is expected to skyrocket by almost two-thirds by 2060. Something Tim Elliot is well aware of, as part of Icon Water's strategic planning space.

TE: We look at it as a holistic system. So, we've moved to an adaptive planning approach. We came up with some of our own scenarios for higher growth, lower growth. Merging contaminants is an issue for us. We do see those pharmaceuticals and microplastics - how do we meet that to maintain river health? What if we have to treat our sewage to a higher level? How do we meet that? Climate change is a big one, and greenhouse gases. How do we minimise the impacts from this site, particularly? What does the customer want and how can we meet it? Obviously, a greater focus on environmental outcomes - that's been going for many decades now. It's increasingly becoming what we need to

meet. Technology innovation: how do we keep regulation up to date with the technology changes? And, for us as a utility: how do we respond to those changes? Evolving regulatory standards: how do we look at the changing nature of those regulations? How do the regulators themselves get together? That's something that we've seen: there is greater regulatory collaborations, and so we're seeing sort of more synergies in that space.

TE: This importance of regulatory collaboration reflects the Inspector-General of Water Compliance's RLF and the sessions held today.

Speaker 2: The Inspector-General of Water Compliance is an independent statutory office holder with oversight, monitoring, regulatory functions and powers established under the *Water Act 2007*. For more information on what we do, visit our website at: igwc.gov.au.

AD: There's been a few forums now. Troy, how's the RLF evolving?

AD: Yeah, to be quite honest, this is meeting number 9 and, when we were established, there was probably a lot of suspicion and worry about what our role would be in the regulatory space, because we are a regulator as well. But we operate on a 'step-in powers' basis. The states are still the frontline regulators. So, clarity around our role, and assurances that we weren't going to duplicate or step into their patch, was critical. But also what potential burdens we were going to place on them, as regulators who sometimes have stretched resources, was certainly a concern. But I'm very pleased to say we are very cooperative, cohesive, and collegiate regulators. We all get on very well. There's a lot of mutual respect in the building. There's a lot of information sharing. There's already a lot of improved practices and there's a lot of work projects being undertaken by us all as a whole. And also, where bordering states are working together, there's satellite imagery, where New South Wales and Queensland are doing work. There's work between the ACT and New South Wales, and New South Wales and Victoria, for example. So, there's plenty of good examples where the regulatory leaders are really leading the way in addressing the public's concern about some consistency in management of water, or water management practices from the regulatory side.

AD: Still to come this season on *Water's Edge*, how's the community feeling about water management in the Murray-Darling Basin? A deep dive into a revealing new report conducted by a ORIMA Research.

Speaker: We've been able to set up a real baseline data point to track the different landscape and things happening across the Basin are having impact on community sentiment.

AD: And plans for a follow-up trade price reporting investigation by the IGWC audits and investigations team. Get ready for water legislation amendments coming into action from 1 July.

Speaker: If we're going to look again, familiarise yourself with the legislation, ask questions, and if you're not sure, then don't do it. Find out.

AD: Plus, a report card on metering compliance across the Murray-Darling Basin. How's your jurisdiction tracking ahead of the 2025 metering reform deadline?

Speaker: There are concerns in the community that water isn't being metered, that we don't understand how much water is being taken from the Basin. We are starting to see some patterns in the metering report card.

Speaker 1: *Water's Edge* is produced by the Inspector-General of Water Compliance, Australian Government, Canberra.