Welcome
Murrumbidgee Customer Advisory Group

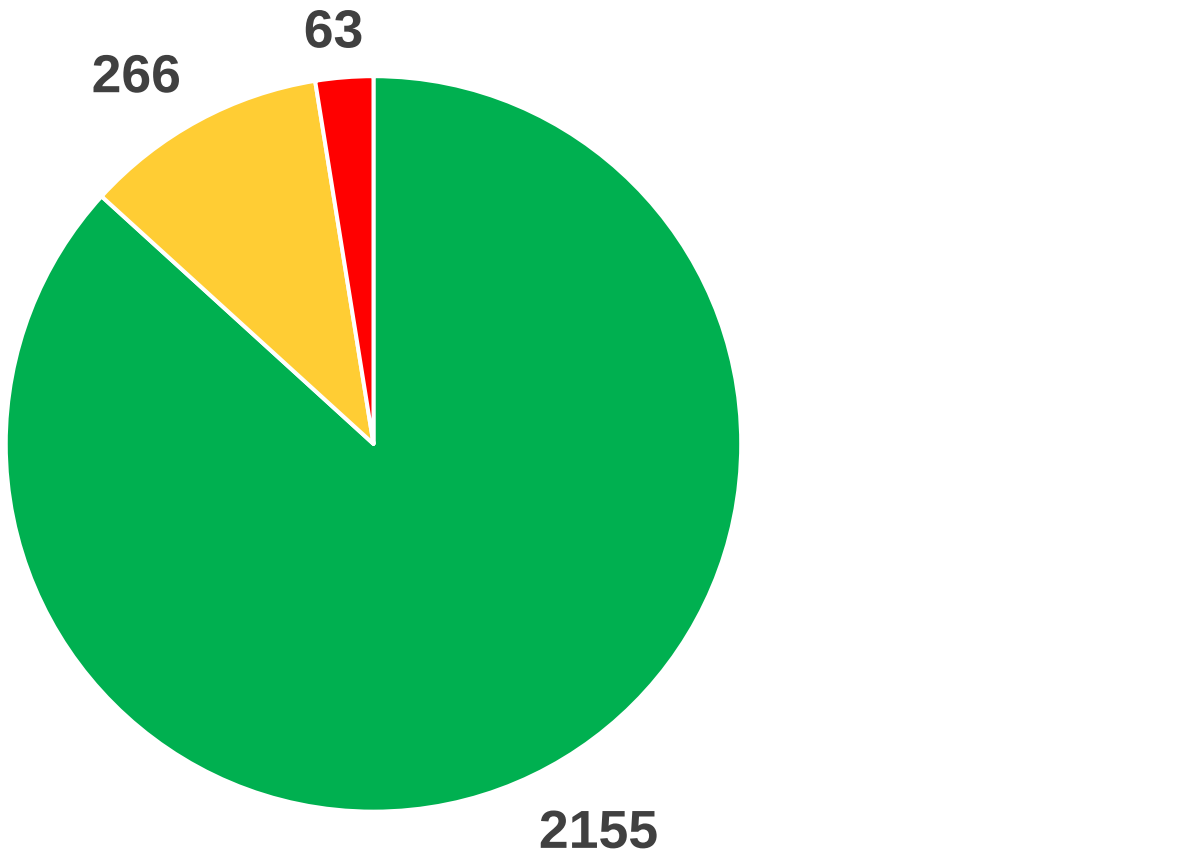
28 April 2021

Asset Maintenance & Services Update

Brian Mayhew
Manager Asset Maintenance & Services

Maintenance completion

Oct 2020 - Mar 2021



Maintenance

Burrinjuck Dam

Sample work order instructions

Work Order No.	WO00074771	Generators (Greater Than 10KVA)-Minor Test
System/Special area		
Facility/Site	WDRBUK	Burrinjuck Dam
WO Type:	00-MAIN-PM	Preventive Maintenance (OPEX)
Current Stage:	7-CLOSEDWO	CLOSED-Work Order has been Closed
WO Priority:	3	Medium (C)
RACS Incident ID:		
Scheduled	**Start:** 11-Mar-2021 15:30	**End:** 11-Mar-2021 17:30

Maintenance

Burrinjuck Dam

Sample work order instructions

JT00000033	Generators (Greater Than 10KVA) - Minor Test	
ARK ID:	D2017/142943	
Task ID:	Task	Completed (Initials)
1.	Check the cleanliness of the generator and the surrounding area ensuring the air intake is clear	
2.	Inspect the generator cooling system for level and leaks.	
3.	Inspect the generator for any fluid leaks, wear, damage, loose connections or corrosion.	
4.	Inspect the battery for cleanliness and any signs of corrosion. Ensure the terminals are clean. If not sealed check levels	
5.	Inspect battery charging system and ensure it's operating effectively.	
6.	Ensure the heating system is working correctly.	

Maintenance

Burrinjuck Dam

Post-tensioned anchor inspection and testing

Maintenance

Burrinjuck Dam

Inspected trash racks for low-level valves

Maintenance

Burrinjuck Dam

Modified hydraulics for ring follower gate valves

Maintenance

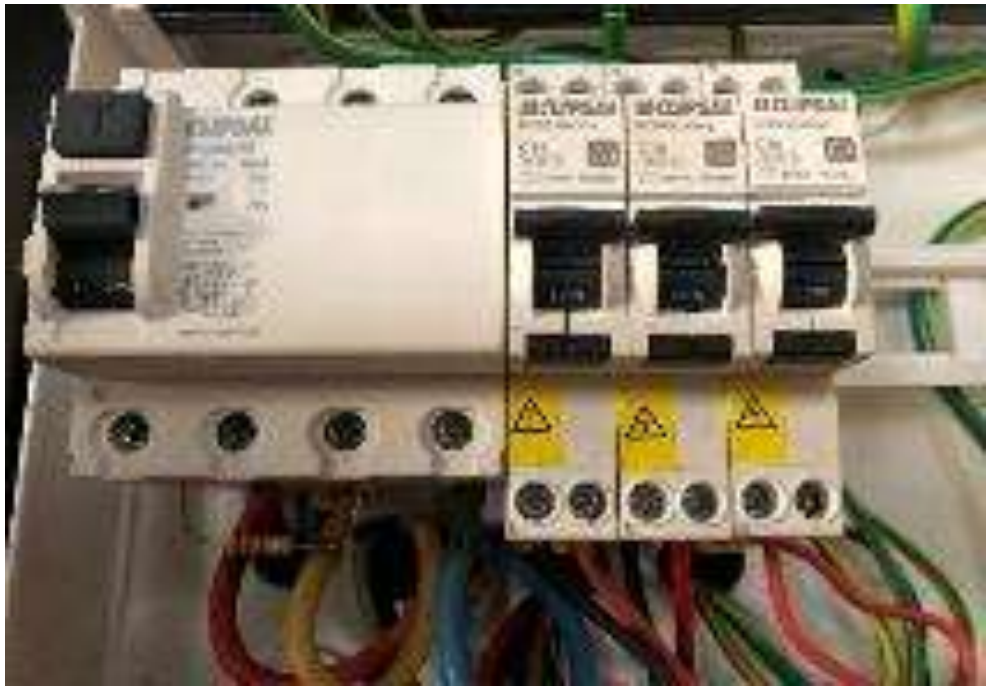
Burrinjuck Dam

Inspected and repaired diesel fuel pod

Maintenance

Burrinjuck Dam

Improved safety in distribution boards



Maintenance

Burrinjuck Dam

Removed redundant communications equipment

Maintenance

Burrinjuck Dam

Supported project team completing cableway refurbishment works

Maintenance

Burrinjuck Dam

Supported project team completing cableway refurbishment works

Maintenance

Blowering Dam

Weed control

Maintenance

Berembed Weir

New toilet block, water tank and filtration system

Maintenance

Berembed Weir

Cottage and Park Fencing refurbishment

Maintenance

Tarabah Weir

Handrail installation

Maintenance

Yanco Weir

Access Road Fallen Tree removal

Maintenance

Yanco Old Weir

Sink hole investigation

Maintenance

Molly's Regulator

Water Operations

Maintenance

Balranald Weir

Boule panel removal

Maintenance

Balranald Weir

Reinstallation of boule panels after high flow

Maintenance

Redbank Weir

RHS Downstream bank erosion

Maintenance

Redbank Weir

Winter maintenance underway

Maintenance

Redbank Weir

Sign upgrades

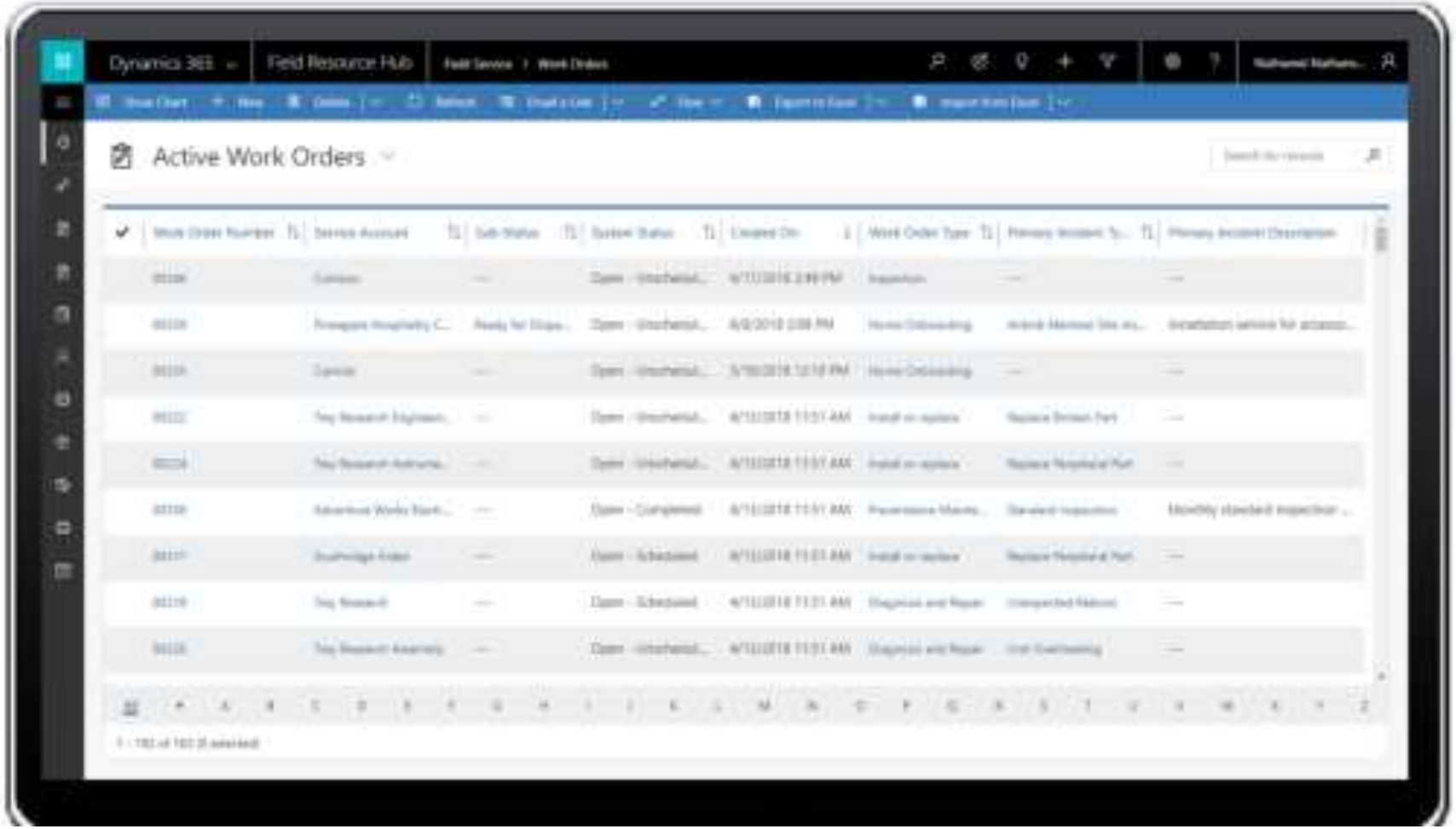
Maintenance

North Redbank Structures – North Caira

Gate 1 leaking and wont close

Maintenance

Mobility Solution



Murrumbidgee/Lowbidgee FY22-25 IPART Submission Update

Chris Braddock
Asset Planning Manager

Overview

- **FY22-25 Renewals Update**
- **Overview of Proposed FY22 Capital Plan**

Murrumbidgee Valley FY22-25 Renewals

Reduction in Murrumbidgee Renewals FY22-25

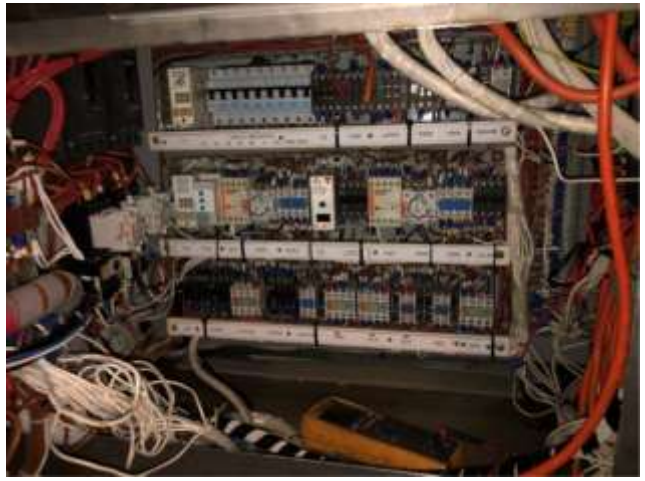
- Removal of Yanco Fishway Refurbishment works from the Murrumbidgee Renewals Provision
- Revised renewal provision reduced by $3.92m

Murrumbidgee Valley

Murrumbidgee Valley FY22 projects

Burrinjuck Dam Mechanical Renewals $1.18m

- Burrinjuck Dam High Level Outlet Gates 1 & 2 require complete refurbishment due to the poor condition which is relied upon WaterNSW and Meridian Energy
- Refurbishment of HL Gates 1 and 2 which includes new hydraulic system, level measurement upgrade, controls upgrade, hydraulic cylinder refurb. or replacement, repairs to upstream dam wall face to enable installation of baulk



Murrumbidgee Valley FY22 projects

Blowering Dam Mechanical Renewals $0.84m

- The hydraulic system for the coaster and bulkhead gate is aged, has superseded parts and electrically non-compliant with modern standards.
- Replacement Hydraulic system for Coaster/Bulkhead and gate tower electrical infrastructure assets

Murrumbidgee Valley FY22 projects

Burrinjuck Dam Cableway Coating Renewals $1.04m

- The condition of the protective coating at head and tail tower of the cableway is in poor condition. The coating is lead based paint and the coating is deteriorating which poses WHS risk and impacts on integrity of cableway system
- Recoat cableway tower to maintain structure integrity and address WHS risk exposure to lead paint

Murrumbidgee Valley FY22 projects

Murrumbidgee Coating Renewals $1.41m

- Burrinjuck Dam Sector Gates 1,2,3 - Coating inspection and Paint upstream face and replace seals on all three gates
- Blowering Dam Valve Refurbishment:
  - 3 x 60'' RFG Valves
  - 1 x 30" RFG Valves and 4m of pressure tunnel
  - 1 x 30" RFG Valve and 13m of 30" penstock
- Outage will be required to undertake these works

Murrumbidgee Valley FY22 projects

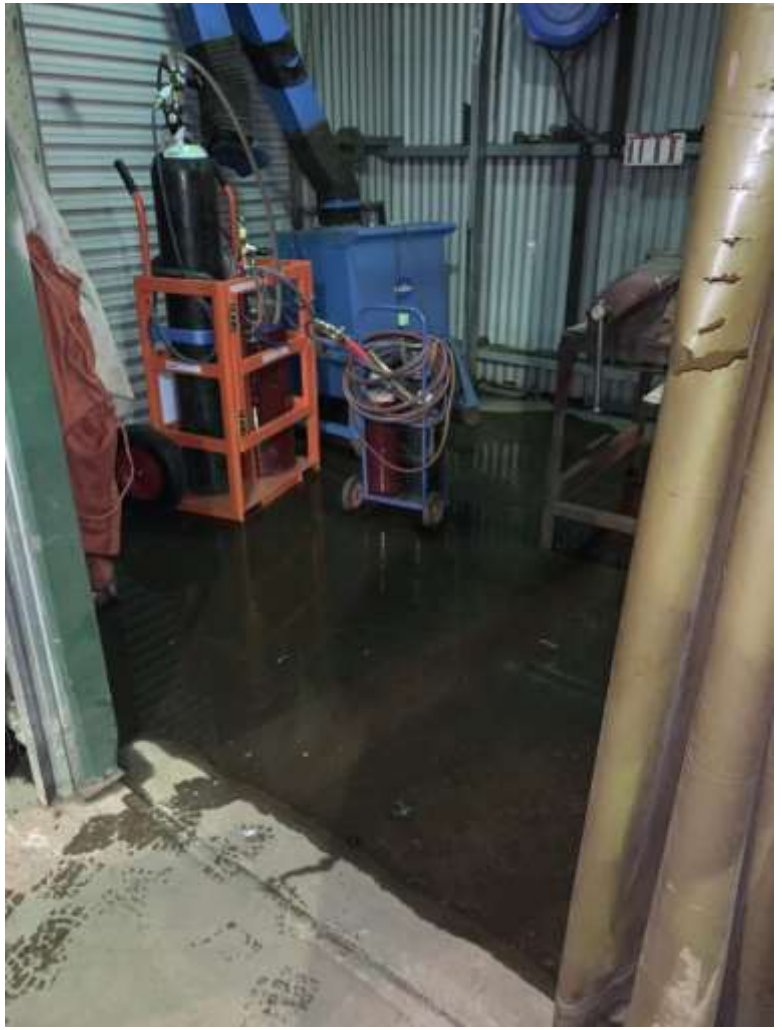
Murrumbidgee Electrical Renewals $0.86m

- **Gogeldrie Weir**
  - Replace gate position instruments and limit switches, electrical switchboard, cabling to control hut and structure, PLC modifications to meet WHS and Electrical Standards
  - Installation of cathodic protection system to allow protection of the coating of the gates
- **Redbank Weir** – Replace gate position instruments and limit switches, electrical switchboard, cabling to control hut and structure, PLC modifications to meet WHS and Electrical Standards
- **Berembed Weir** – Replacement of gate position instrument, limit switches and downstream float well
- **Beavers Creek Regulator** - Install suitable height tower to allow communications to site for remote operation

Murrumbidgee Valley FY22 projects

Murrumbidgee Civil Works $0.12m

- Burrinjuck Dam – Replace Office and storage shed to comply with WHS standards



Lowbidgee Valley

Lowbidgee Valley FY22 projects

Lowbidgee Civil Works $0.66m

- North Redbank Channel Syphon – upgrade water drainage under channel for system
- Talpee Bridge Regulator – Gates and WHS access upgrades and downstream erosion protection works
- Jindeena Bridge Regulator – WHS access upgrade
- Narwhie Bridge Regulator – Gates and WHS access upgrade
- Breer Escape Regulator – Security barrier to prevent public access

Lowbidgee Valley FY22 projects

Lowbidgee Gate Renewals $0.07m

- Athon to Redgum Forest Regulator gate is approximately 20 years old and undergone extensive corrosion. It is also operated by a drill which can cause injury such as sprains and broken bones when it jams. Failure of the gate results in environmental and operational risks related to uncontrolled flows
- Upgrade gates and actuators to comply with WHS and standards

Questions?

Water Reform Implementation Plan

Update

Jonathan Dickson o/a David Swift-Hoadley

Project Manager – Meter Title Transfer

Non-Urban Metering reform

April – May 2021

Metering

The Water Reform Action Plan (**WRAP**) was a response to the independent investigation into NSW water management and compliance by Ken Matthews, AO (**The Matthews Report**) and the Murray-Darling Basin Water Compliance Review (**MDB Compliance Review**).

The government and private metering programs are underway for compliance and validation due up to December 2021

(500mm or greater December 2020 and Northern Region December 2021)

Metering: Rollout dates

To refresh

Existing licence and approval conditions apply until the new compliance dates come into effect

Source: Department of Planning, Industry and Environment, "Non-urban water metering in NSW, What water users need to know" industry.nsw.gov.au/__data/assets/pdf_file/0006/320199/Non-urban-water-metering-in-NSW-What-water-users-need-to-know.pdf

Metering: Conditions that apply now

From 1 April 2019

The following conditions apply regardless of your rollout date.

Faulty metering equipment

- report the fault within 24 hours by completing the S91i form
- manually record water take if required
- repair the meter or replace it with a new pattern approved meter within 21 days

New or replacement meters

- be pattern approved
- installed with tamper proof seals and validated by a duly qualified person (DQP)
- have an approved local intelligence device (LID)

Inactive works

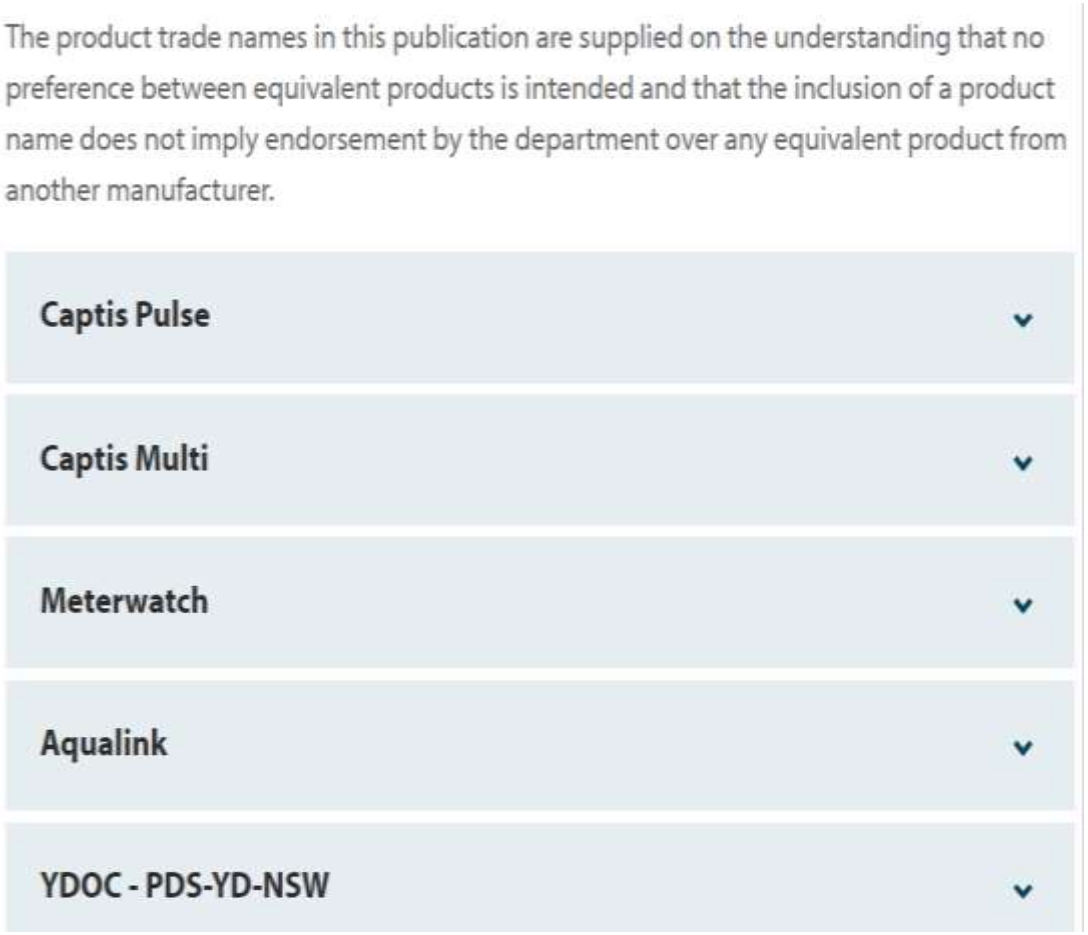
- check your approval to make sure it matches the works listed
- you will not need to comply with the new rules if your works are inactive
- apply to make works inactive or reactivate them

Metering: What is a Pattern Approved Meter?

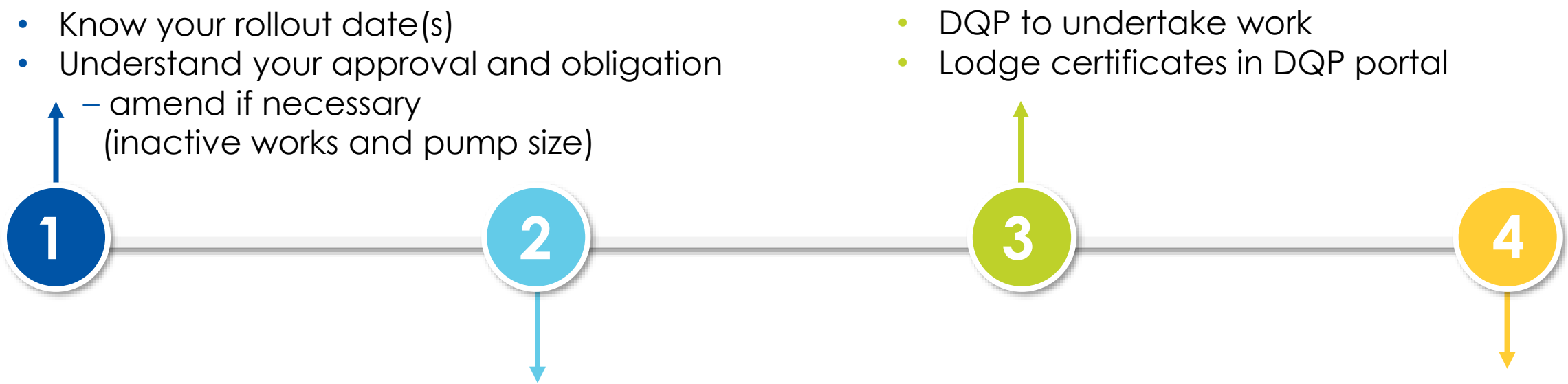
- The National Measurement Institute is responsible for approving meters
- A list is available from the MDBA website
- Currently there are 15 meters listed – ranging from 25mm to 1800mm
- https://www.mdba.gov.au/publications/mdba-reports/compliance-enforcement-documents

Metering: What is an approved LID?

- The department maintains the list of compatible data logging and telemetry devices
- The list is designed to help water users and DQPs understand which devices have been tested and meet requirements of the DAS
- It is the water user's responsibility to ensure they purchase a fit-for-purpose device that meets their needs
- https://www.industry.nsw.gov.au/water/metering/telemetry/list-of-compatible-data-logging-and-telemetry-devices-and-solutions



Metering: Path to compliance



- Know your rollout date(s)
- Understand your approval and obligation – amend if necessary (inactive works and pump size)

- Engage DQP to discuss options
  - make existing meter compliant
  - install new meter, or
  - pathway to compliance

- DQP to undertake work
- Lodge certificates in DQP portal

- Understand recording and reporting obligations

Metering: Government-owned meters

Meet the team

David Swift-Hoadley

Richard Castro

Jessica Douglas

Karen Zadro

Sarah Boyd

We'll be in touch

We will contact you ahead of your rollout date with more information

What we'll do

- Check your rollout date(s) and approvals
- Visit and asses each site for compliance ability
- Schedule work
- Make all valid sites compliant to 2019 Maintenance Specifications

The first 182 GOMs are scheduled in

The first 39 GOMs have new LIDs

12 Mace meter replacements in progress

Metering: Useful resources

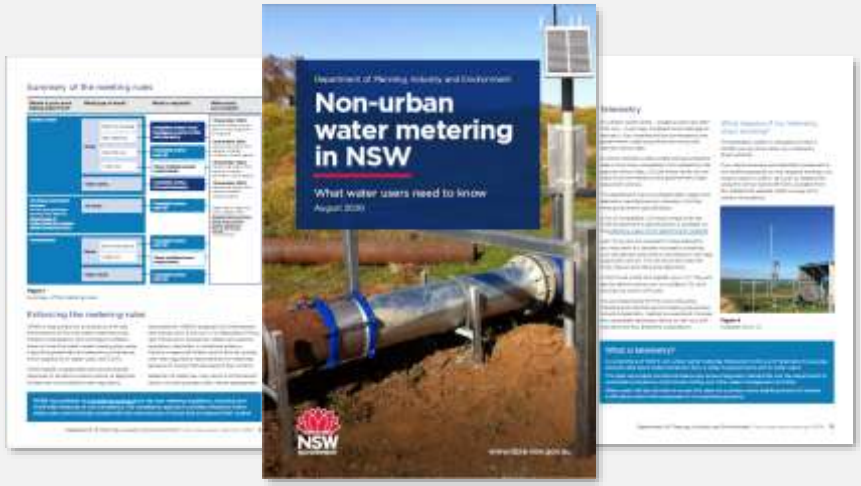
To help you understand the new metering rules, please refer to the following resources from the Department of Planning, Industry and Environment (DPIE) for and the Natural Resources Access Regulator (NRAR).

Metering guidance tool

How the rules apply to you

Metering leaflet

What you need to do by your rollout date and on an ongoing basis



Compliance fact sheet

NRAR's approach to enforcing the rules

Regional Water Strategy update

Andrew Fraser
Manager Asset Strategy
Water solutions & market strategy

Floodplain Harvesting Measurement – What water users need to know

Department of Planning, Industry and Environment

Floodplain Harvesting Measurement

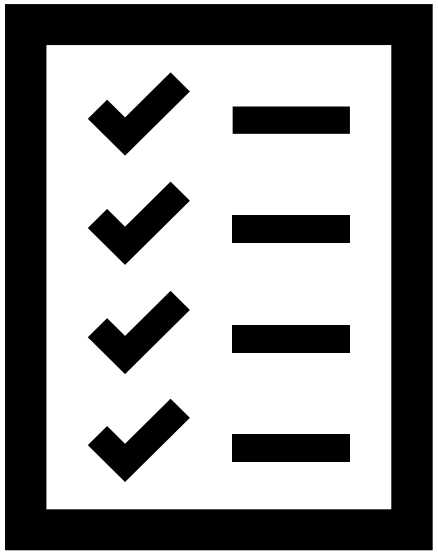
Image: Installation of submersible (elevated platform) meter.

- Volumetric licencing and accounting rules will soon be implemented in the Northern Basin river valleys
- Key to licencing floodplain harvesting take is being able to measure it
- Floodplain Harvesting Measurement Policy released July 2020
- Regulations to enact the Measurement Policy are expected to be published March/April 2021

NSW GOVERNMENT

How is Government developing the rules?

- Policy was released in July 2020.
- Government is developing regulations to enact the policy.
- Incorporating feedback from Pub Ex,
- Released in late April
- Regulations will be constant with published guidelines



New Guidelines

Existing Guidelines

Existing Storage Metering Equipment Guideline – Feb 2021
Point-of-take Measurement Method guideline – Feb 2021

View guidelines on our website:
https://www.industry.nsw.gov.au/water/plans-programs/healthy-floodplains-project/improvement-program-for-floodplain-harvesting-measurement-and-compliance/ready

NSW GOVERNMENT

What equipment do I need?

- Survey Benchmarks
- Compliant storage meter
- Compliant local intelligence device with data logging and telemetry capability
- Secondary Measurement Method (e.g. Gauge Board)

Image: a submersible embankment meter.

Pathway for use of existing meters provided they meet accuracy and installation criteria.

What types of measurement devices can I use?

- **Radar Sensor** – measures water level using radar from above (catwalk)
- **Submersible Pressure Sensor** – affixed to the base from an elevated platform to the deepest point of the storage
- **Submersible Pressure Sensor** – installed along the embankment to the deepest point of a storage.
- **Point-of-take** – measure inflow at all intake points and follow non-urban water metering rules.

Image: a radar sensor to meter floodplain harvesting entitlement.

What do I need to do now?

- Water user's responsibility to ensure they are compliant with the regulations.
- Engage a DQP to prepare to install measurement equipment
- Engage a registered surveyor to establish survey benchmarks and gauge boards (or through your DQP)

Image: of installed submersible embankment.

What's next?

Continue to work with you as well as industry – suppliers & installers - and other parts of Government to make sure you have the systems you need to be compliant.

Coming Up

- Engagement
- Guidance
- Support

Image: the Barwon Darling River at Bourke.

fph.measurement.nsw.gov.au

The Natural Resources
Access Regulator (NRAR)

The role of regulatory discretion and education in water compliance

Amiette Wakenshaw
Manager Regulatory Capability & Ethics at
The Natural Resources Access Regulator (NRAR)

NSW water regulator

Before NRAR, the likelihood of being caught and facing the consequences of breaking the water rules in NSW was low.

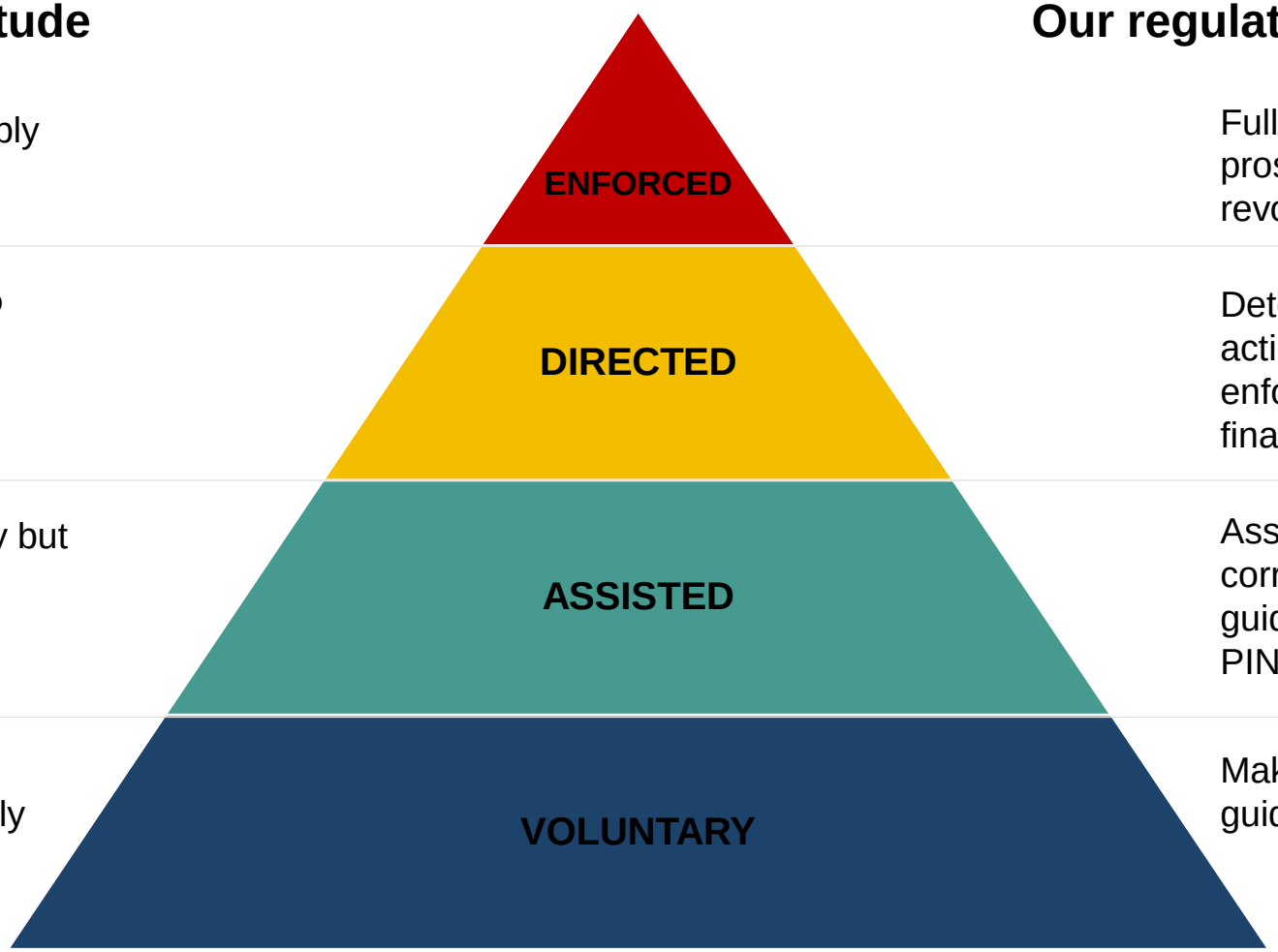
Our establishment in 2018 turned things around.

Our hardline approach to those who decided not to comply means others have worked harder to follow the rules.

We’re proud to say that today, communities believe it's important for water laws to be enforced and water users want to do the right thing.

Our approach to water compliance

Impact **Attitude** **Our regulatory tools**



Actions at the top of the pyramid support actions at the bottom by clarifying expectations and demonstrating that those who don’t comply will be held to account.

Regulatory discretion

We approach investigations on a **case-by-case basis** and use our **discretion** to determine our response.

When using our discretion, we consider:

Serious, substantiated and wilful acts of non-compliance will face the **full force of the law.**

Where non-compliance occurs out of **ignorance, with little harm caused** we will use other tools or **educational measures.**

Regulatory responses

We have a range of tools at our disposal and we use discretion to apply them

Punitive measures:

- statutory directions
- penalty infringement notices (PINs)
- civil action
- licence action
- prosecutions.

Other tools:

- education or awareness campaigns
- education measures (individual and collective)
- advisory letters
- written and verbal warnings
- cautions
- enforceable undertakings
- corrective action requests.

Case study:

Floodplain harvesting disallowance

- the disallowance created uncertainty
- licences for FPH harvesting to be issued in 2021
- water taken must be done so in accordance with an access licence, works/use approval, exemption or basic landholder right
- during this time, NRAR will continue to suspected breaches and will take action against wilful, harmful and series non-compliance
- NRAR will consider the ambiguous environment the disallowance has created alongside our key regulatory principles.

Education and encouragement first

Most water users want to do the right thing, but issues arise when they don’t **know the rules.**

We are creating a suite of resources to help water users know the rules including a new video.

Future videos in this series will focus on identified priorities to support the education and voluntary compliance of our water users across NSW.

These may include metering, harvestable rights, and controlled activities, as starting points.

Video: Know the Rules

The Natural Resources
Access Regulator (NRAR)

Satellites in the water monitoring process

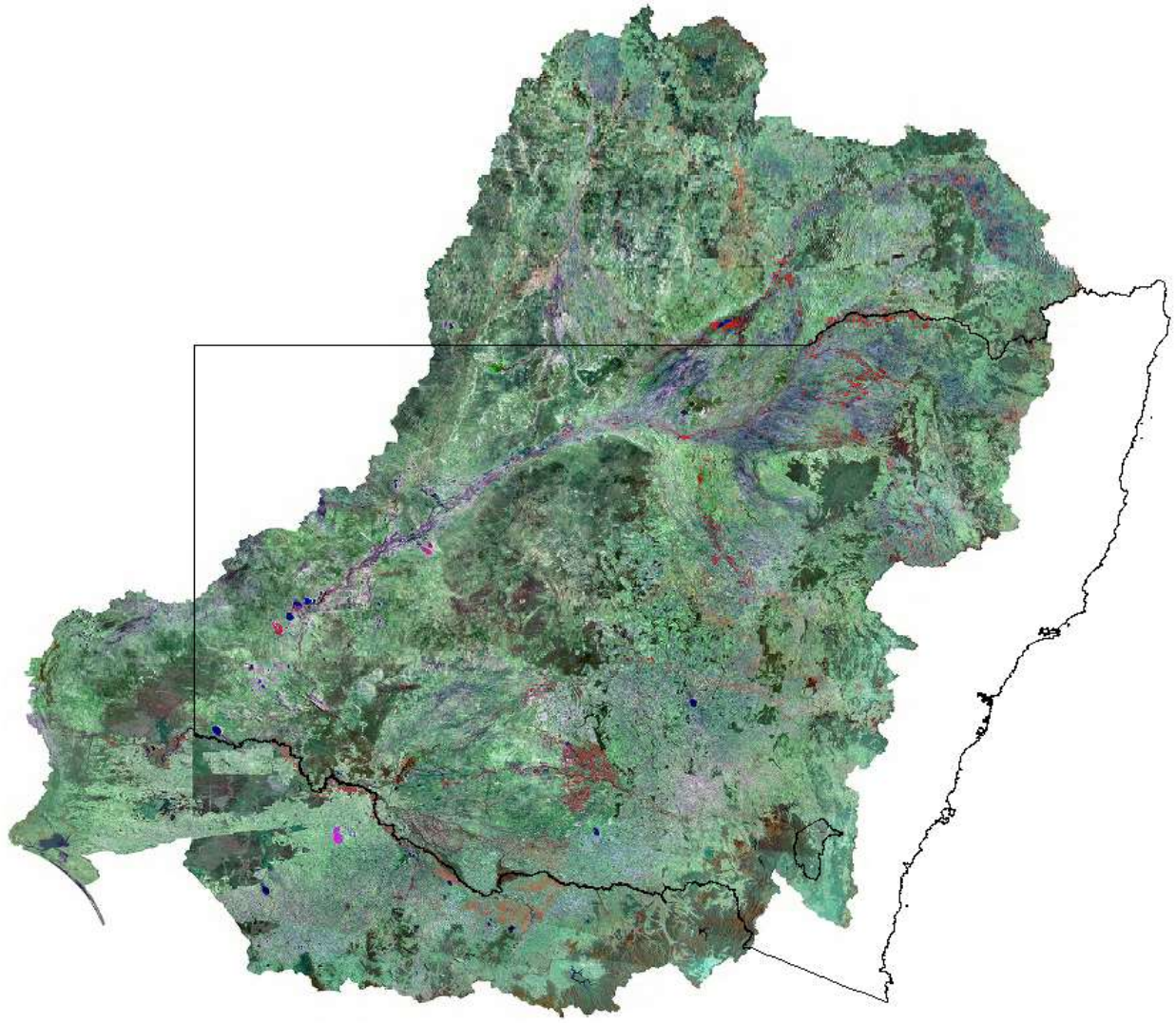
Martin Stuart
Spatial Analyst
The Natural Resources Access Regulator (NRAR)

Technology and innovation is crucial to NRAR

In NSW we need to monitor, audit and regulate water take across:

- > 800, 000 sq. km
- > 42, 000 water access licenses
- > 33, 000 works approvals for irrigation alone (from 161, 000 works in total)
- > 10, 000 constructed water bodies greater than 1 Ha in size (from 437 000 in total)
- many ‘sleeper works and licenses’, particularly in unregulated systems.

Q: how do we proactively assess where and whether potential non-compliance may be occurring?



Water compliance assessments play a key role

The mystery of the Murray-Darling's vanishing flows

By national science, technology and environment reporter Michael Slezak, Mark Doman, Katia Shatcba, Penny Timms and Alex Palmer

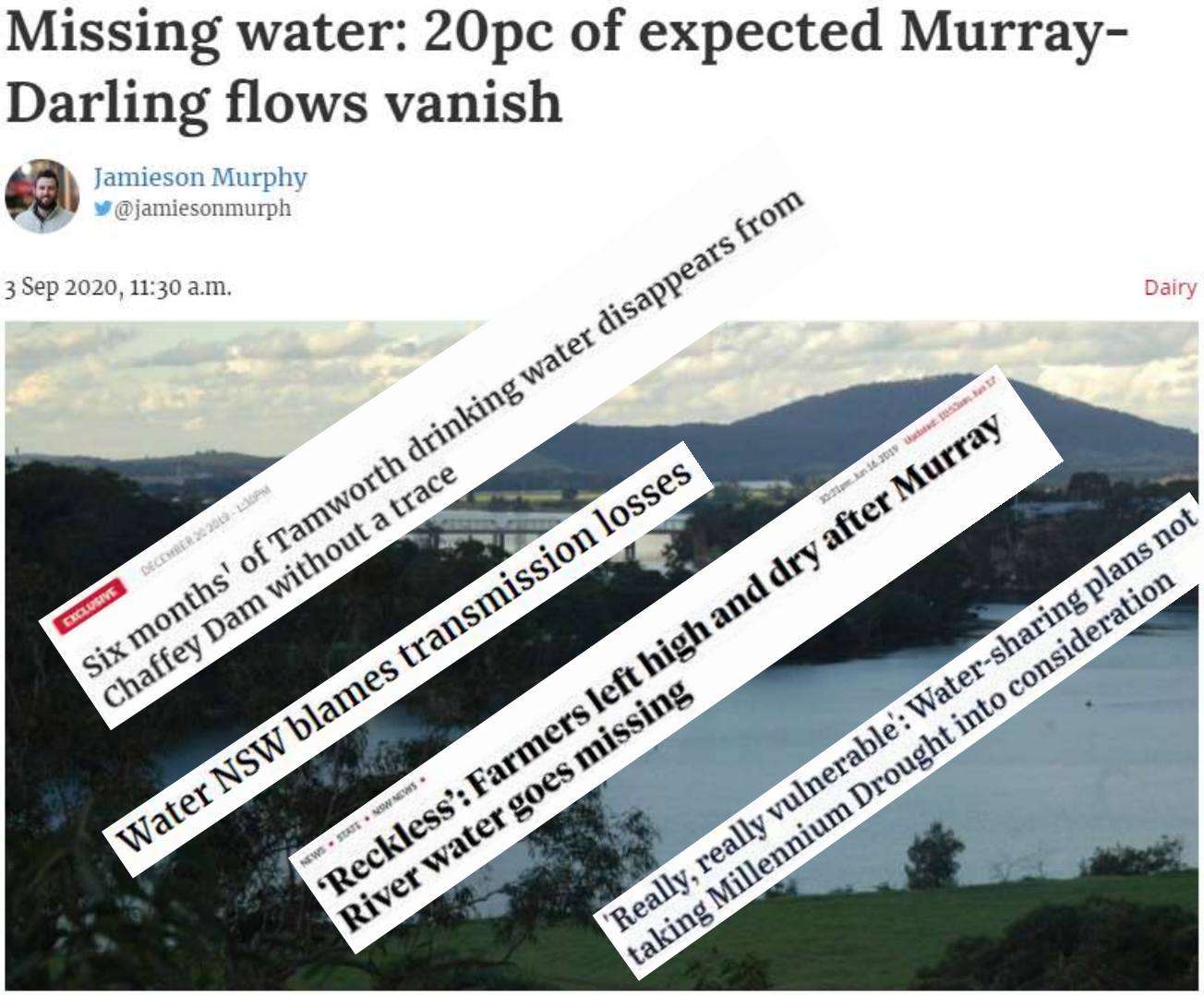
Assessment of river flows in the Murray-Darling Basin:

Observed versus expected flows under the Basin Plan 2012-2019

August 2020

WENTWORTH GROUP OF CONCERNED SCIENTISTS

Mr Peter Cosier, Prof Tim Flannery FAA, Dr Terry Hillman AM, Prof Lesley Hughes, Prof David Karoly FAA, Prof Richard Kingsford, Prof Martine Maron, Prof Jamie Pittock, Prof Hugh Possingham FAA, Mr Robert Purves AM, Prof Fran Sheldon, Ms Anna Skarbek, Prof Bruce Thom AM, Mr Martijn Wilder AM.



Missing water: 20pc of expected Murray-Darling flows vanish

Jamieson Murphy
@jamiesonmurph

3 Sep 2020, 11:30 a.m.

Dairy

Six months' of Tamworth drinking water disappears from Chaffey Dam without a trace

Water NSW blames transmission losses

'Reckless': Farmers left high and dry after Murray River water goes missing

'Really, really vulnerable': Water-sharing plans not taking Millennium Drought into consideration

Water Take Compliance Assessment: a simple framework

Is the water take/use lawful with regard to: timing; volume or location of take/use?

Timing

- Protecting ewater
- unregulated river cease-to-pump rules
- regulated river take with no water orders
- logbook records of water take (unmetered but active users).

Volume

- Take exceeding entitlement and account balances and limits
- unlicensed dams on 3^{+} order streams
- dams exceeding Harvestable Rights
- licensed pumps, bores etc exceeding authorised capacities
- regulated river take in excess of water orders.

Location

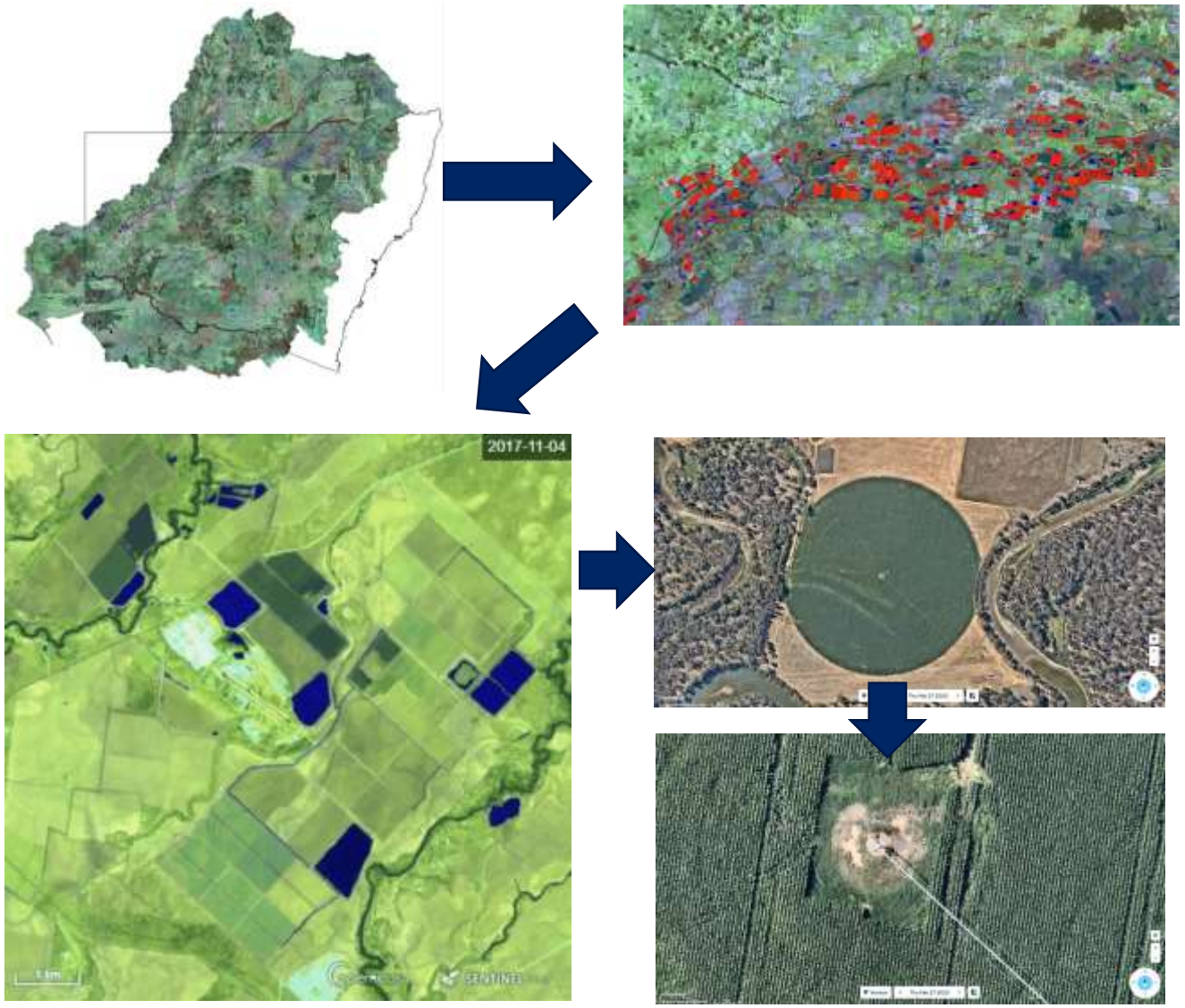
- Water take and use on properties without approvals (eg. for irrigation)
- water management works (eg. levees, diversion channels, FPH) without approvals
- unlicensed pumps and bores accessing and taking water.

We apply this framework to state-wide/regional/local screening at a resolution of individual properties and holistic regulatory compliance campaigns (desktop, media, fieldwork, education).

What technology does NRAR use?

NRAR has access to many technologies, tools and expertise in external agencies:

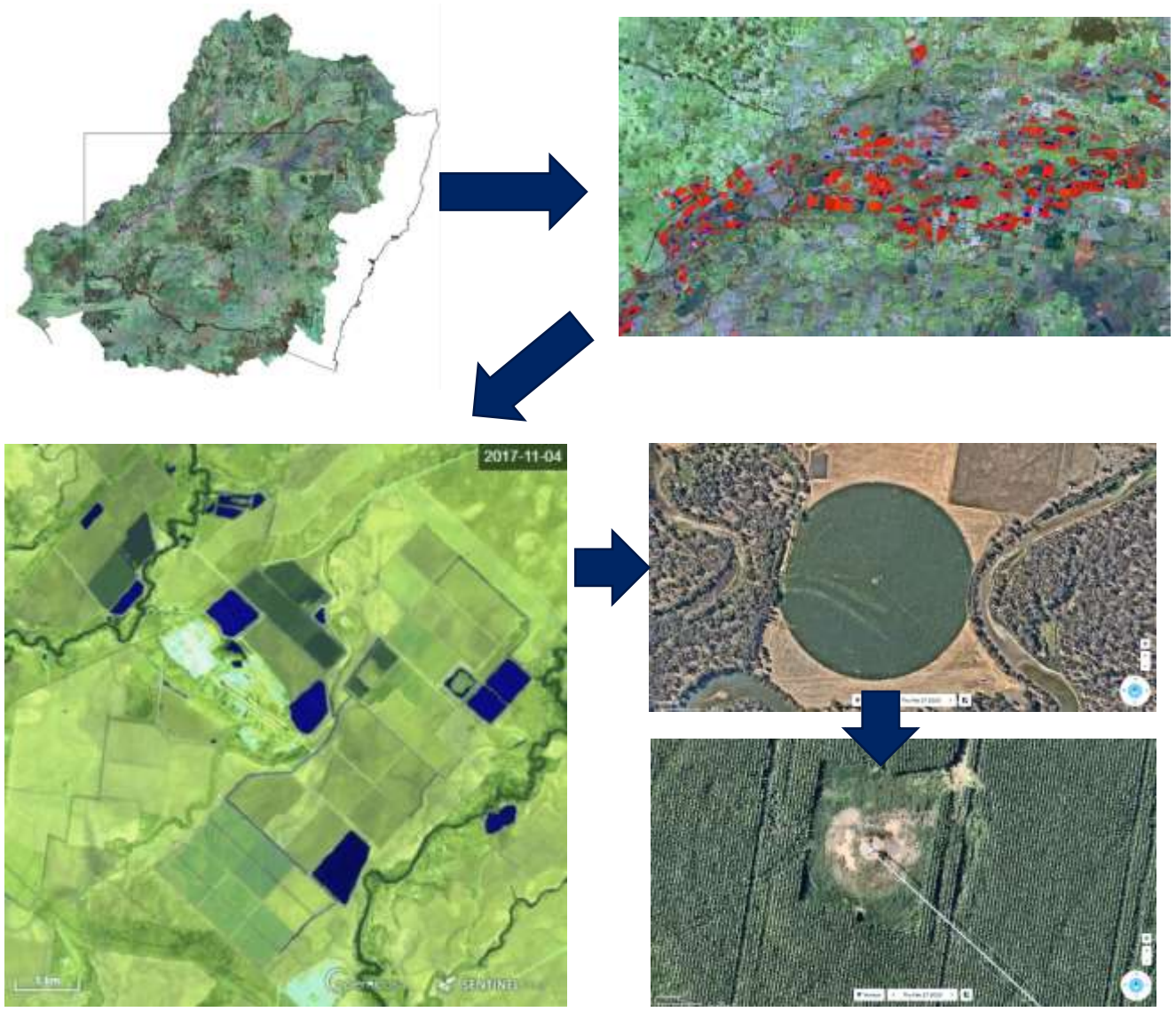
- medium resolution **Sentinel and Landsat satellite imagery** (global coverage every 5-16 days)
- high resolution **Planet satellite imagery** (daily coverage across NSW)
- very High resolution **SkySat** – NRAR can ‘task’ this satellite to image any area in NSW with less than 72 hours notice
- **nearmap** – very high resolution aerial photography, mainly across NSW coastal areas
- **drones** – very high resolution aerial photography captured ‘as needed’ for site specific investigations.



What tools and expertise do we access from other agencies?

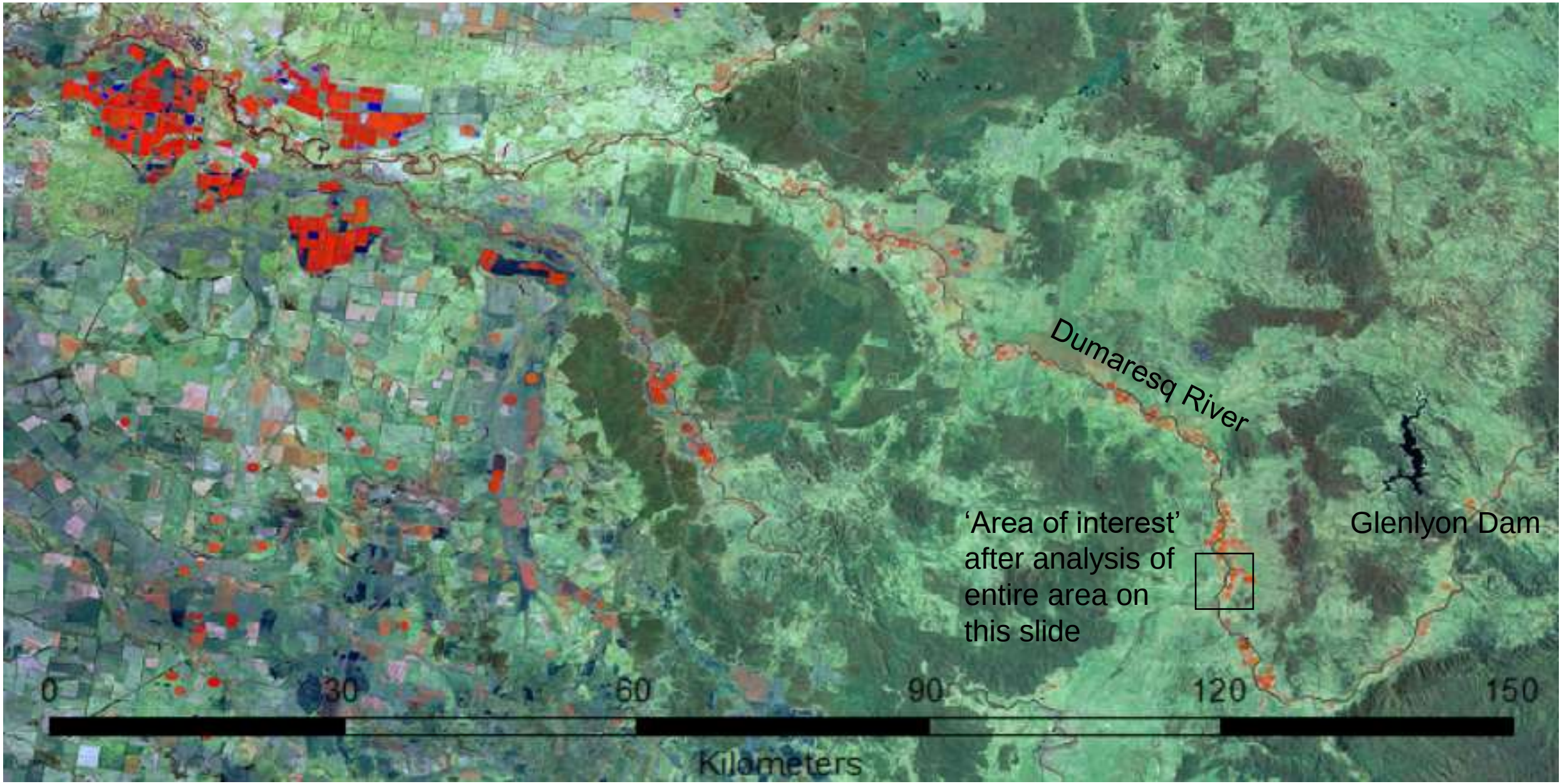
NRAR has access to many technologies, tools and expertise in external agencies:

- Geoscience Australia expertise, for example the GEOSCIENCE AUSTRALIA WATERBODIES TOOL: **https://maps.dea.ga.gov.au/**
- MDBA expertise, for example the **MDBSat system**
- **DPIEW expertise**, for example dam volume change analysis.

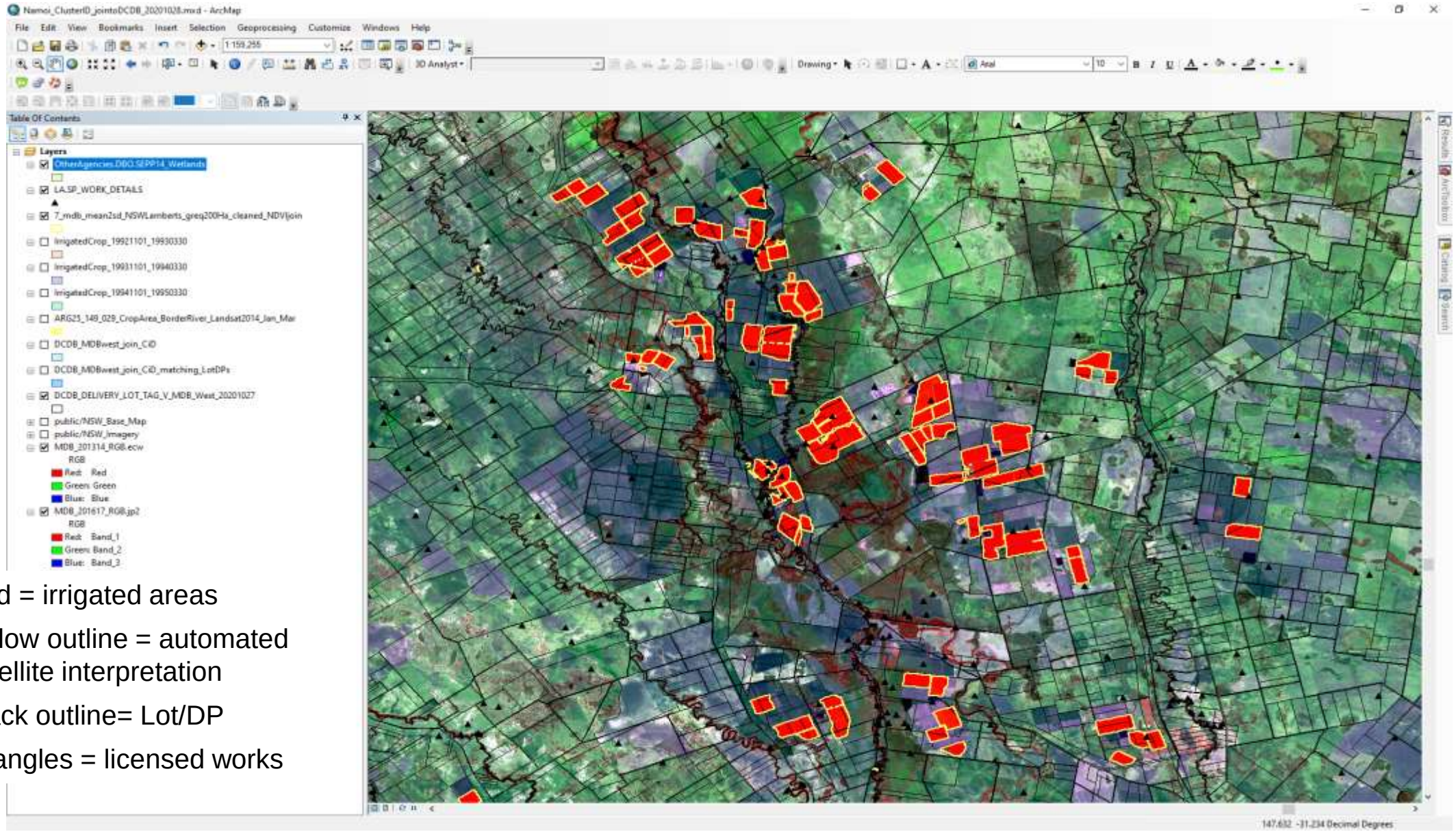


The Geoscience Australia ‘waterbodies tool’

Can we detect unlawful water take applied directly to crops?



Locational compliance: detecting unapproved irrigation



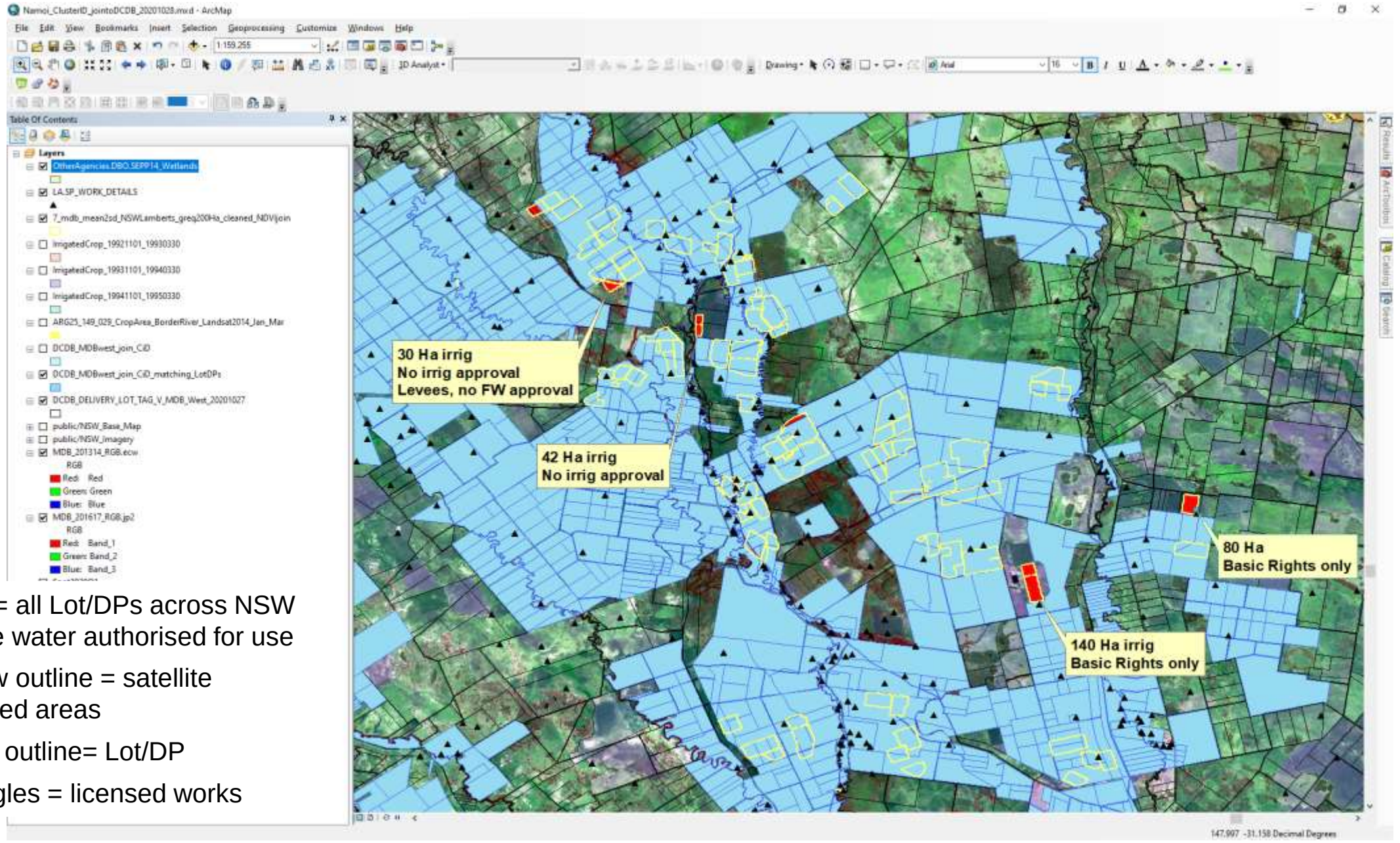
Red = irrigated areas

Yellow outline = automated satellite interpretation

Black outline= Lot/DP

Triangles = licensed works

Locational compliance: detecting unapproved irrigation



Blue = all Lot/DPs across NSW where water authorised for use

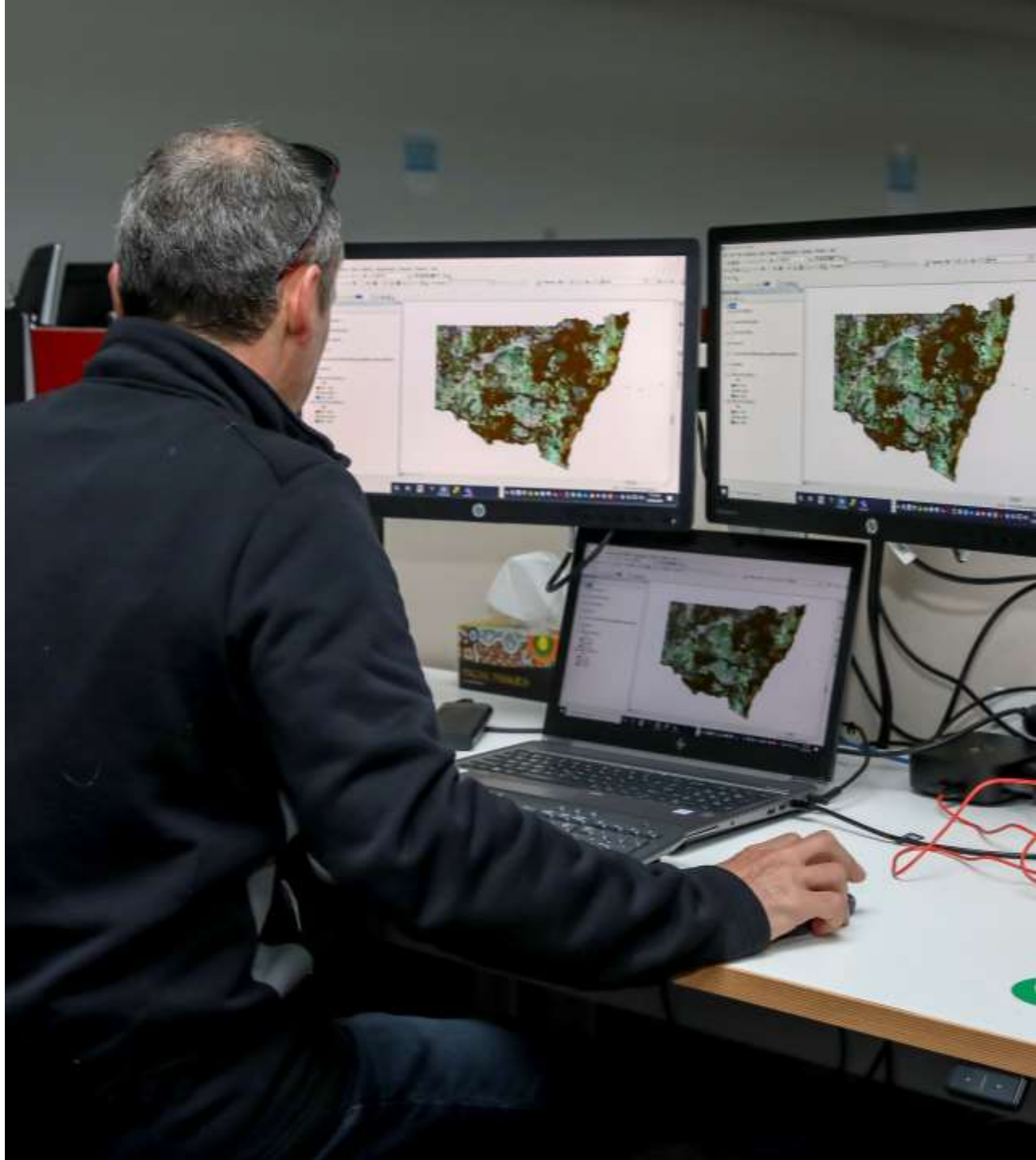
Yellow outline = satellite irrigated areas

Black outline= Lot/DP

Triangles = licensed works

Conclusion

- NRAR uses technology systematically to monitor and assess compliance across vast areas on almost any water issue in NSW.
- The technology and NRAR's capabilities are improving all the time.
- What can you do to make sure you are compliant?
    - be proactive
    - check your works approvals and water access license details
    - notify Water NSW of errors or omissions
    - make sure you understand and follow the terms and conditions of your works approvals, access licenses and water sharing plans
    - contact NRAR if you are unsure if you are non-compliant.



Questions?

Find out more about NRAR

Website: industry.nsw.gov.au/nrar

Phone: 1800 633 362

Email: nrar.enquiries@nrar.nsw.gov.au

Write to us: Locked bag 5022,
Parramatta NSW 2124

NSW GOVERNMENT | Department of Primary Industries

Fish screens

Better farming, better fishing.

Dr Craig Boys & Dr Tom Rayner

Customer Advisory Groups | April 2021


57397 RESEARCH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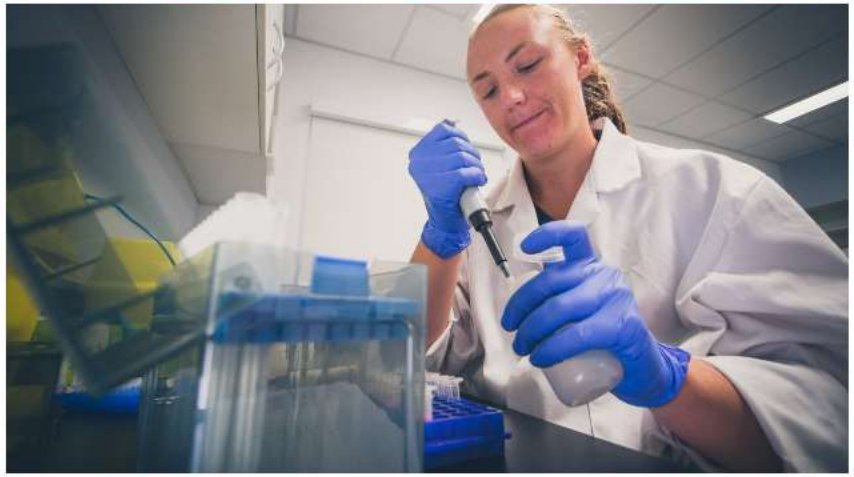



OLYMPUS









Ron Gol Station – Andrew and Marina Rix

Ron Gol Station – Andrew and Marina Rix

Ron Gol Station – Andrew and Marina Rix

Benefits

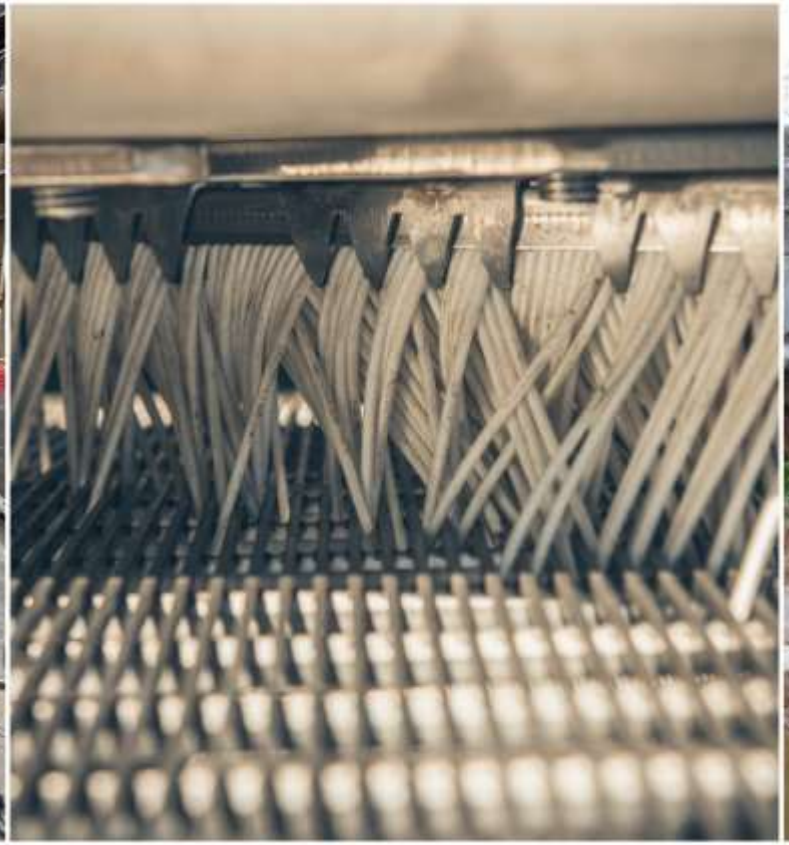
- Zero debris, zero fish!
- Inline filter no longer required
- No back flushing, no blockages
- Protection of high-tech drip line

Why Screen?

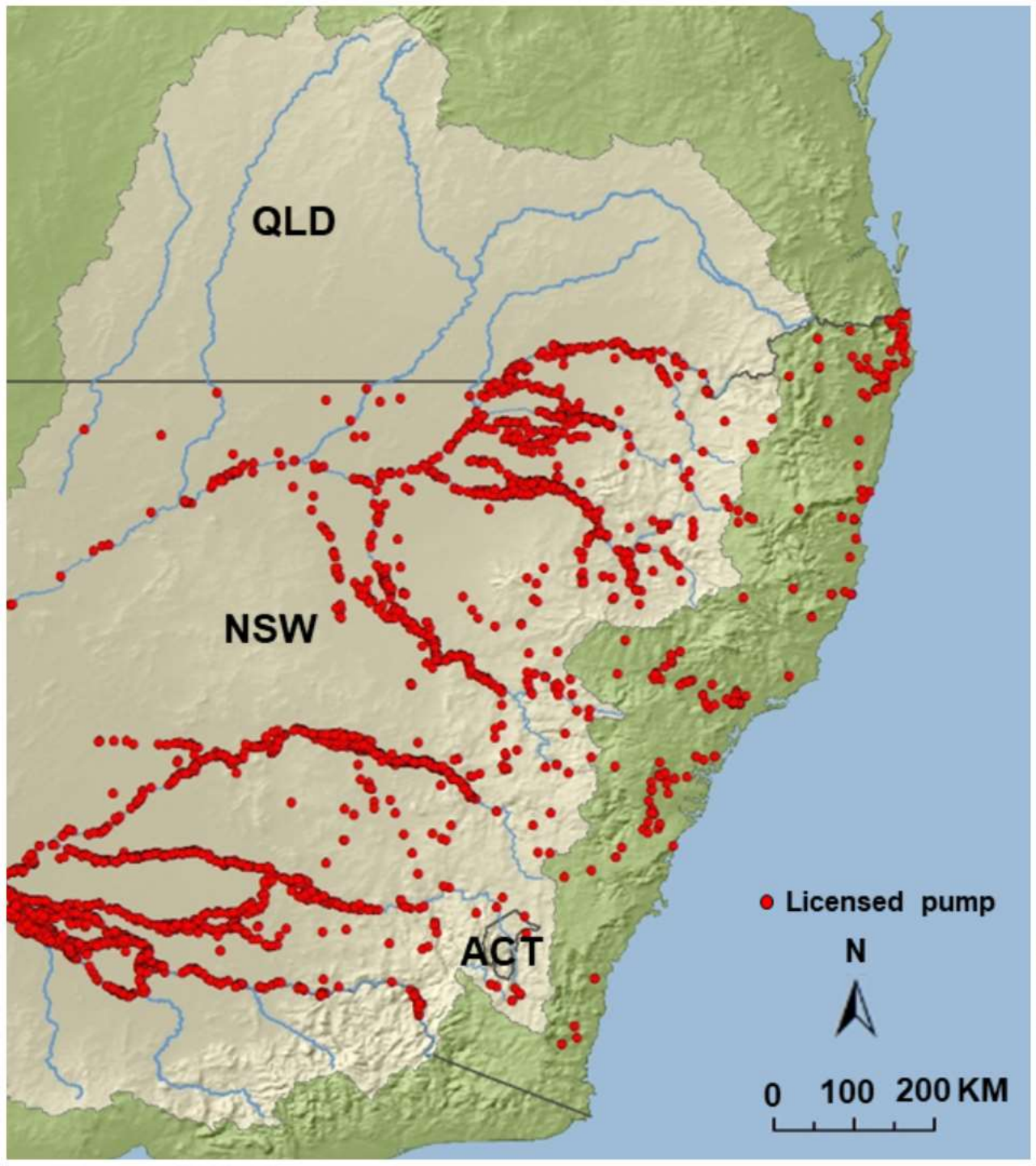
- “Devastated by fish kills. Environmental sustainability, reduce maintenance, save water. Asset to the business”

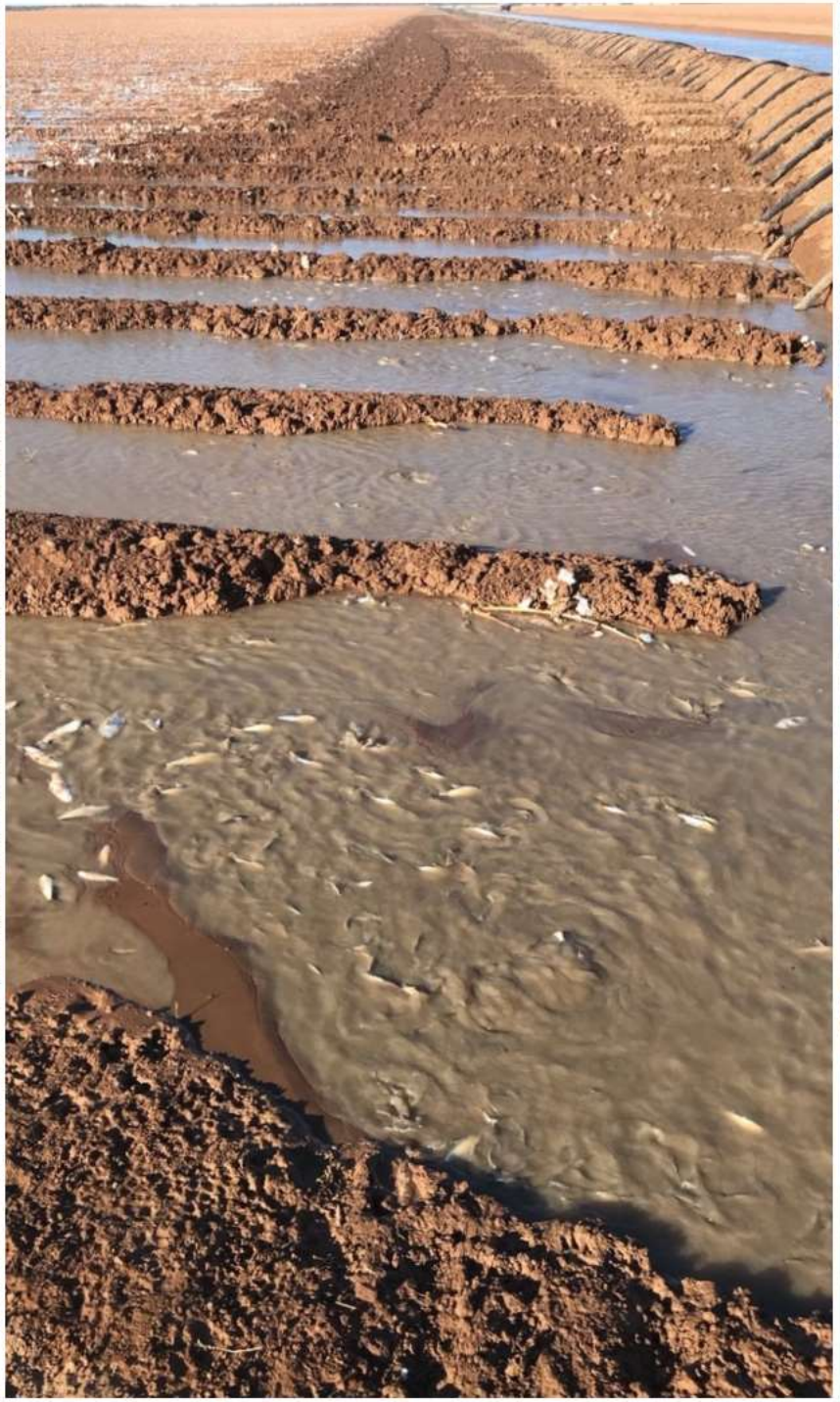
Trangie-Nevertire Irrigation Scheme

Trangie-Nevertire Irrigation Scheme



Trangie-Nevertire Irrigation Scheme


QLD
NSW
ACT
Licensed pump
N
0 100 200 KM

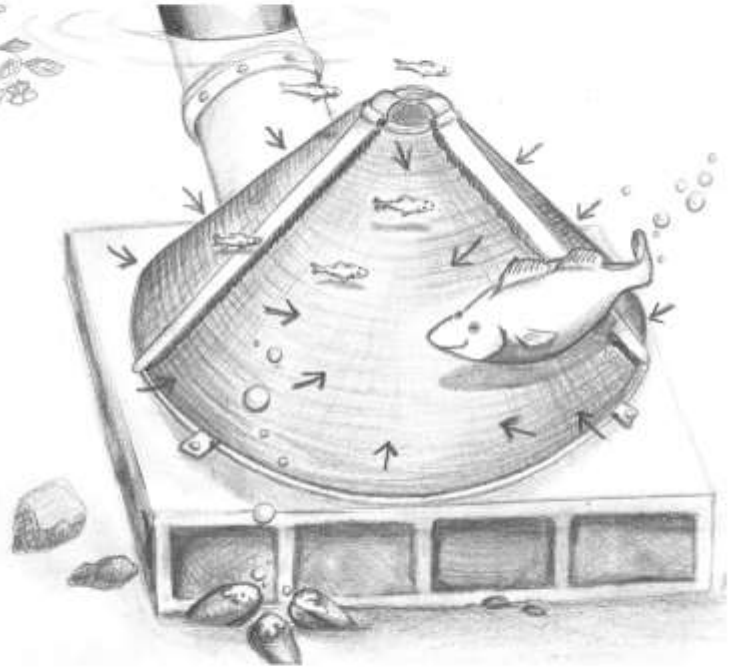

Traditional screen

Costs farmers time and money
Impacts native fish

- Water velocity fast
- Holes too big
- Easily blocked

Modern screen

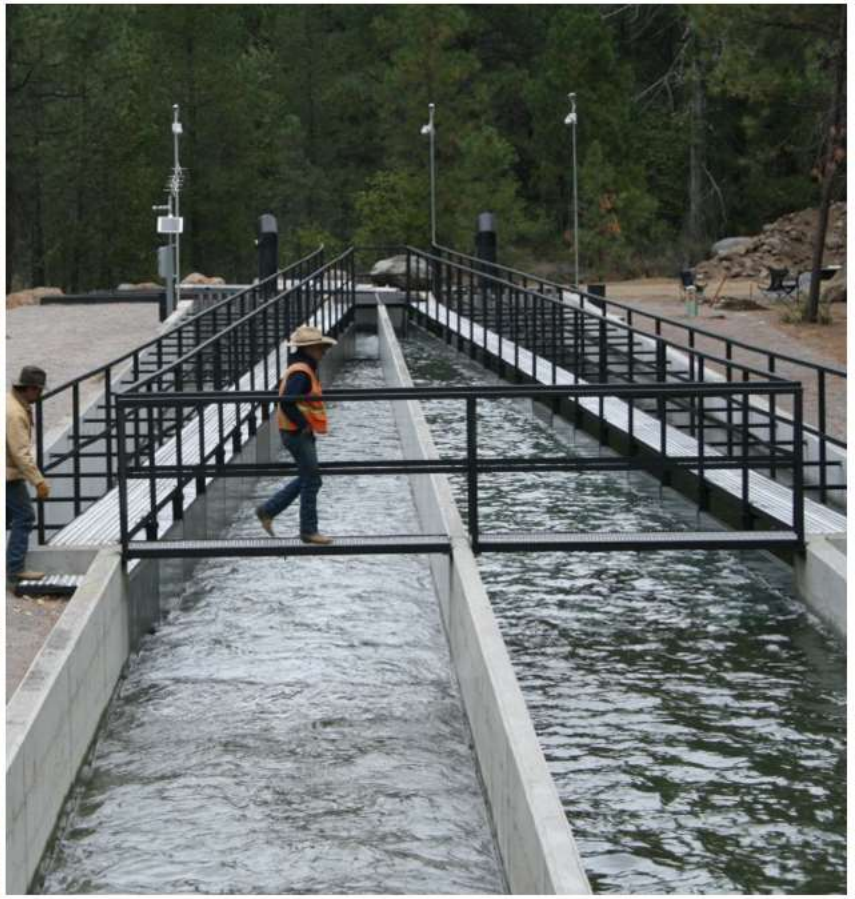
Stops river debris and lowers maintenance
Protects native fish



- Same volume, lower velocity
- Fine mesh
- Self cleaning





Fisheries design criteria

- <0.1 m/sec approach velocity (@ screen face)
- Not exceed 2mm mesh
- Active cleaning

WATER USERS LEADING THE WAY

Trangie-Nevertire Irrigation Scheme

Macquarie River, NSW

Central West Farming Systems

Condobolin, NSW

Oakben Agricultural Company

Macquarie River, NSW

Jimm-Dara

Lachlan River, NSW

Dewfish Reach

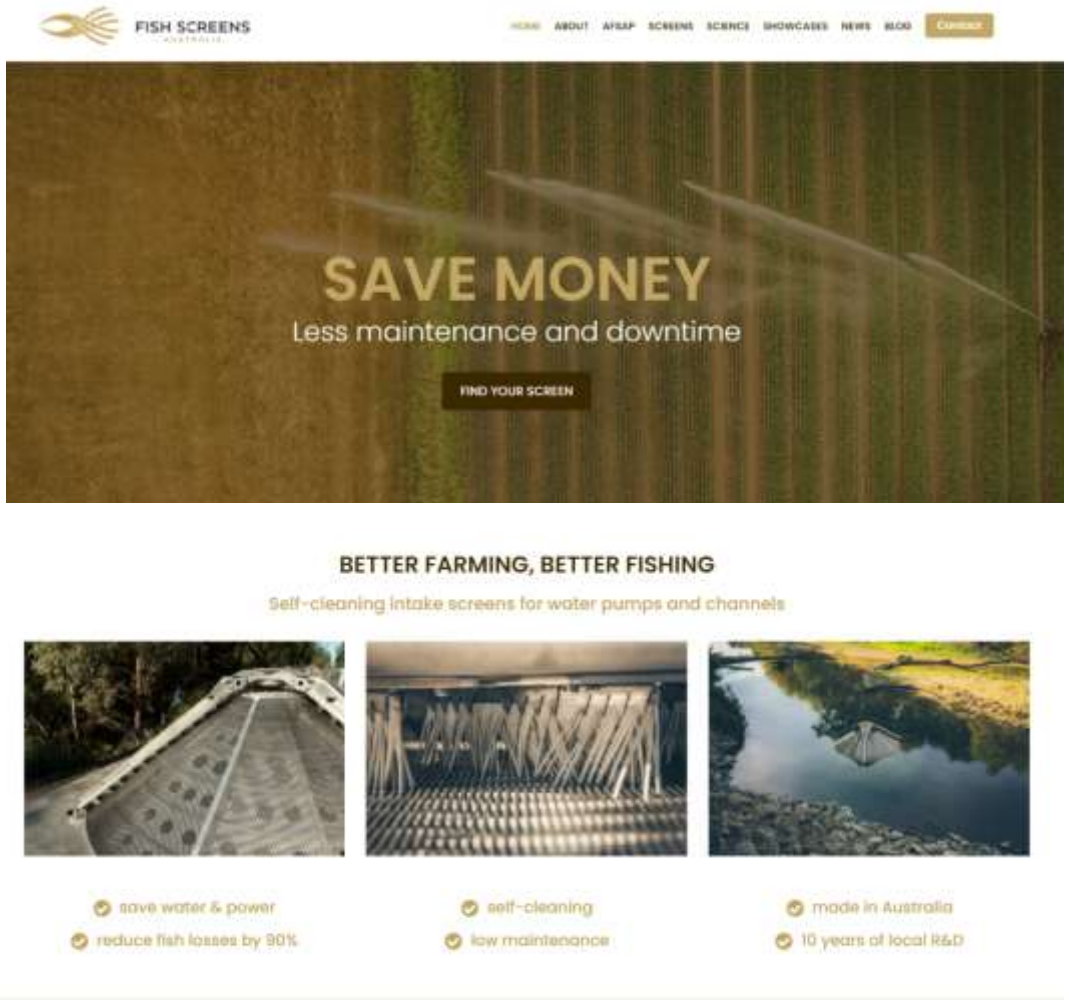
Oakey Creek, QLD

Number 3 Offtake

Gunbower Creek – NSW

Fish Screens Australia

1. Promoting showcases with best-practice farmers.
2. Experimental testing and screening guidelines.
3. Awareness campaign and website
4. Fish Screening Technical Advisory Group – coordination.
5. Measuring progress – perceptions, awareness, uptake.



www.fishscreens.org.au

Regulatory Economics
Pricing Determinations

1. Rural Determination
2. WAMC Determination
3. Metering

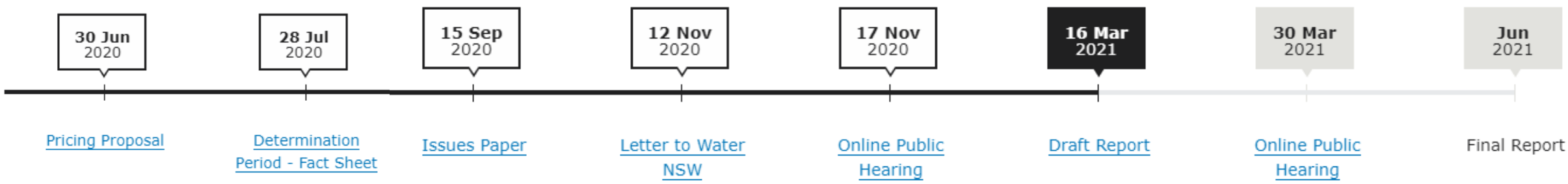
Jonathan Dickson
Manager Customer and Industry Relationships

Rural Valleys Recap

- 2019-2020 WaterNSW proposed a shorter 'administrative' determination to consider drought impacts on many customers
- Nov 20 - IPART confirm WaterNSW required to provide a 4-year Determination
- 30 valley specific Engagements on 4-year forecast completed by 23 Feb 2021
- 16 March 20 Draft IPART report issued
- **Now:** time for discussion and submissions to IPART on Draft report
- New prices take effect 1 July 2021

IPART website https://www.ipart.nsw.gov.au/Home/Industries/Water/Reviews/Rural-Water/WaterNSW-rural-bulk-water-prices-from-1-July-2021?qDh=0

IPART Timeframe



Rural Valley Summary

Pricing Proposal

Valley	Proposed Price Change			
Lowbidgee	**21/22**	**22/23**	**23/24**	**24/25**
WaterNSW proposed	+1%	+41%	+41%	+41%
IPART Draft report	+72%	0%	0%	0%

*Forecast excludes MDBA fee changes

Since IPART has not increased all charges uniformly, in the draft report "price changes" we've included bill impacts based on:

- For all valleys except Fish River, the average bill impact on a GS customer with 60% utilisation and a HS customer with 100% utilisation
- For Fish River, the average of all customers

Rural Valley Summary

Pricing Proposal

Valley	Proposed Price Change			
Murrumbidgee	**21/22**	**22/23**	**23/24**	**24/25**
WaterNSW proposed*	+8%	+12%	+12%	+12%
IPART Draft report	+19%	0%	0%	0%

*Forecast excludes MDBA fee changes

Since IPART has not increased all charges uniformly, in the draft report "price changes" we've included bill impacts based on:

- For all valleys except Fish River, the average bill impact on a GS customer with 60% utilisation and a HS customer with 100% utilisation
- For Fish River, the average of all customers

Rural Valley Summary - MDBA and BRC

Table 12.2 Bill impacts – BRC and MDBA pass-through charges only

	Current ($2020-21)	Proposed 4 year FCR ($2021-22)	Draft decision 2021-22 ($2021-22)	Change current to proposed	Change current to draft decision
High security user					
Border	$2,905	$5,025	$2,860	73.0%	−1.5%
Murray	$4,720	$7,745	$5,255	64.1%	11.3%
Murrumbidgee	$1,030	$1,650	$1,115	60.2%	8.3%
General security user					
Border	$1,177	$2,010	$1,141	70.8%	−3.1%
Murray	$2,398	$3,626	$2,458	51.2%	2.5%
Murrumbidgee	$424	$631	$428	48.8%	0.9%

Source: Water NSW pricing proposal to IPART, June 2020 and IPART analysis.

Table 12.1 Bills by valley including MDBA and BRC costs

	Current ($2020-21)	Proposed four-year FCR[a] ($2021-22)	Draft decision 2021-22 ($2021-22)	Change current to proposed	Change current to draft decision
High security user					
Border	$8,705	$12,540	$9,310	44.1%	7.0%
Gwydir	$12,360	$18,780	$15,550	51.9%	25.8%
Namoi	$19,960	$29,905	$26,375	49.8%	32.1%
Peel	$32,275	$44,990	$43,380	39.4%	34.4%
Lachlan	$18,535	$29,785	$26,070	60.7%	40.7%
Macquarie	$14,695	$21,955	$19,250	49.4%	31.0%
Murray	$6,580	$10,310	$7,640	56.7%	16.1%
Murrumbidgee	$4,405	$6,175	$5,275	40.2%	19.8%
Lowbidgee	-	-	-	-	-
North Coast	$15,730	$16,125	$16,115	2.5%	2.4%
Hunter	$13,875	$20,175	$18,800	45.4%	35.5%
South Coast	$25,895	$26,545	$26,550	2.5%	2.5%
General security user					
Border	$4,000	$5,648	$4,260	41.2%	6.5%
Gwydir	$5,712	$7,643	$6,336	33.8%	10.9%
Namoi	$10,746	$14,154	$12,491	31.7%	16.2%
Peel	$8,099	$10,727	$10,344	32.4%	27.7%
Lachlan	$7,623	$11,698	$10,243	53.5%	34.4%
Macquarie	$5,987	$8,730	$7,661	45.8%	28.0%
Murray	$3,421	$4,981	$3,718	45.6%	8.7%
Murrumbidgee	$2,090	$2,808	$2,425	34.4%	16.0%
Lowbidgee	$420	$860	$740	104.8%	76.2%
North Coast	$10,546	$10,812	$10,812	2.5%	2.5%
Hunter	$9,570	$13,907	$12,964	45.3%	35.5%
South Coast	$14,285	$14,646	$14,646	2.5%	2.5%

a Based on prices that would recover Water NSW's proposed costs (in its June 2020 pricing proposal) on a four-year full cost recovery (FCR) basis.

Note 1: Includes BRC costs in the Border valley and MDBA costs in the Murray and Murrumbidgee valleys.

Note 2: The Lowbidgee valley has supplementary licences that are charged fixed entitlement charges only.

Source: Water NSW pricing proposal to IPART, June 2020 and IPART analysis.

WaterNSW comment on IPART Rural Valleys Draft

IPART	WaterNSW
Operational Cost reductions on a top-down basis; e.g. direct salaries, land tax	Believe the approach is aggressive, lacking any theory or basis for reductions, direct costs are easily benchmarked and reductions are considered excessive
Catch up efficiencies approach: • Continuing efficiency • (Opex) of $5.5m reduction of 4 years	Do not support the reductions, or understand the approach used
Insurance product replacing the RTP, IPART propose a self insurance model over the long term (20 years)	Don't support self insurance approach, exposes us to leverage our balance sheet for under recovery. Rural business isn't strong enough to avoid funding cost increases that directly impact customer prices. IPART say they can't bind a future tribunal, yet this approach requires implementation over 5x Determination periods and still would not make us whole due to forecasting error

WaterNSW comment on IPART Rural Valleys Draft

IPART	WaterNSW
Fishways proposed a reduction of $56M (on $76M), suggesting a pilot approach prior to work commencing	Not supported, Aitkins propose a pilot approach for current obligations, potentially increasing costs further. The reduction is overstated and excessive. We are proposing a reduced programme that will meet our current obligations within the period
Capex reductions • Fishways – above • Top-down reduction of $16M	Approach seems excessive and would potentially compromise service standards. Methodology is not clear on reasons for reductions
Cost Allocation, Aitkins completed a detailed Corporate Costs review with no direct cost reductions identified. Suggesting a change to the cost allocation method.	Do not support. Moving away from the IPART (and Audit office) approved approach does not make any sense when such a detailed review was completed. This is not a reduction in cost, but a reshuffle of costs to other Determinations, a reduction for RV would be an increase for WAMC

WaterNSW comment on IPART Rural Valleys Draft

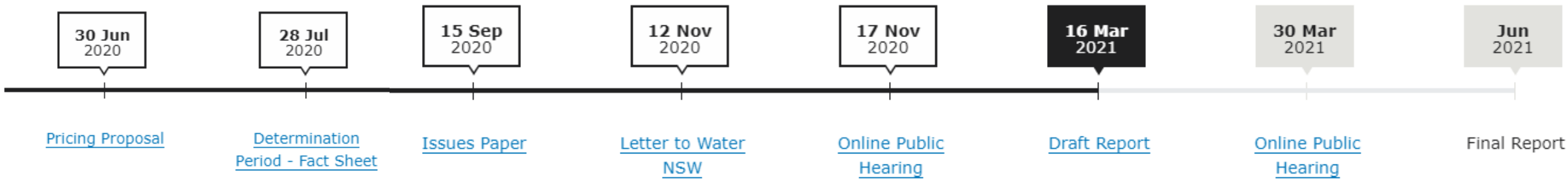
IPART	WaterNSW
WACC (weighted average cost of capital) set at 1.3%	Will be suggesting for Rural Valleys (and WAMC) an alternative approach that will reduce future risk. This WACC is very low and has potential to create further challenges in the future
Inflation approach changed	The approach to inflation creates a double dipping effect, reducing the WACC further. Based on the AER (Aust Energy Regulator) review, this approach should be revisited

WAMC Recap

- WaterNSW, DPIE, NRAR all contribute to this Determination
- June 20 three water agencies make submissions made to IPART proposing increases be capped at 5%
- 16 March 20 Draft IPART report issued
- **Now:** time for discussion and submissions to IPART on Draft report
- New prices take effect 1 July 2021

IPART website https://www.ipart.nsw.gov.au/Home/Industries/Water/Reviews/Rural-Water/Review-of-Water-Management-prices-from-2021?qDh=0

IPART Timeframe



WAMC Summary

Valley	Proposed Price Change			
WAMC	**21/22**	**22/23**	**23/24**	**24/25**
WaterNSW, DPIE, NRAR proposed	+5%	+5%	+5%	+5%
IPART Draft report	+2.5%	+2.5%	+2.5%	+2.5%

WaterNSW comment on IPART WAMC Draft

IPART	WaterNSW
Consent Transactions - 20% reduction	Accepted; not supported, a flat reduction with no evidence of efficiency is hard to understand. A top down approach is a blunt method to apply
Water-take Assessment charges reduced	Not accepted; we disagree with the methodology proposed. Will be submitting our recommendations for consideration
WACC (weighted average cost of capital) set at 1.3%	Will be suggesting for WAMC (and RV) an alternative approach that will reduce future risk. This WACC is very low and has potential to create further cost impacts in the future.

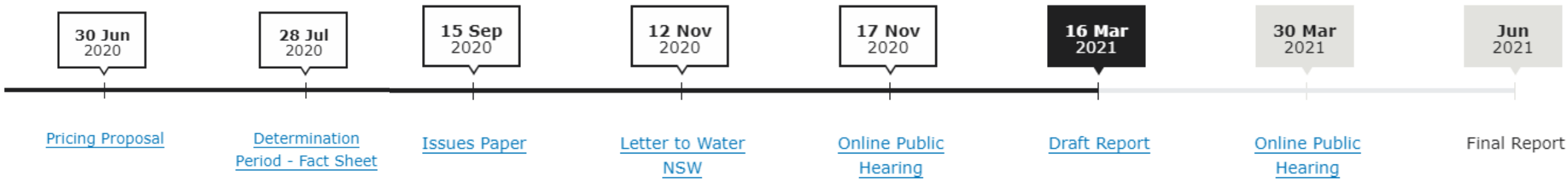
WaterNSW comment on IPART WAMC Draft

IPART	WaterNSW
Customer Management charges – reduction of $5m over period	Not agreed, the reduction does not reflect our costs, having used YTD actuals and not the true overhead for the period
Opex – top down reductions	Not accepted, top-down reductions have not considered core cost drivers of this activity. Top-down is a blunt approach
Capex reductions • Top-down reduction of $2M • Vehicles reduction	Approach seems blunt and not particularly analytical. Vehicles - misunderstood our approach to longer term procurement benefits

Metering Recap

- WaterNSW required to implement new Regulatory Reform
- Costs to implement new regulations prepared and tested/submitted to IPART 30 Nov 20
- IPART not yet confirmed final position on WaterNSW proposal, noting they recognise costs for implementation will need to be covered
- **Now**: Further information being requested - Time to respond to IPART prior to final report

IPART Timeframe



Important Metering Information

1. Obligations for compliance to the non-urban metering reforms is the responsibility of the work approval holder
2. WaterNSW's objectives in developing its submission was to support water users through their compliance journey and minimise any risk of non-compliance.
3. Our ability to support water users as we had planned and priced in our submission is contingent on funding

What is involved?

1. For those whose works sit below the threshold, recording any water take or commence/cease to pump reporting to WaterNSW is required
2. For those works that sit above any of the thresholds or are located in an at risk groundwater source one of the following needs to occur:
   - Install a new meter
   - Make the existing meter compliant
   - Change the pump size on the work approval to be below the threshold (if possible)
   - Make the works inactive so it cannot take water
3. There are ongoing obligations for the majority of all works in terms of recording and reporting and for metered works regular maintenance to ensure the equipment is working accurately

Principals of our Submission

1. Our submission was designed to support water users/customer in meeting their obligations
2. The reforms have been consulted on extensively by DPIE
3. It is important that these reforms are implemented with the intent of improving the measurement of water take
4. Costs were allocated by licence and meter rather than by entitlement as water user obligations are similar irrespective of pump or entitlement size
5. WaterNSW's submission sought to provide water users value for money and minimise risk in meeting their compliance obligations

IPART Submission 30 Nov 20
Cost Materiality (per annum)

39,223 licence holders will pay

$77

20,628 privately owned meter holders will pay

$345

2,822 government owned meter holders will pay (**or opt out**) to become a privately owned meter holder

$1,870

Update: IPART discussions/expectations & understanding reform

39,223 licence holders will pay	**20,628** privately owned meter holders will pay	**2,822** government owned meter holders will pay (**or opt out**) to become a privately owned meter holder
~$77	**$254 - $345**	**$1,700 - $1,870**

WaterNSW have been working with IPART to help them understand Metering Reform allowing WaterNSW to decrease our Revenue Requirements as a result of greater clarity

All water licence holders

Benefit	Included
Access to subject matter experts to help understand my obligations	✓
Ability to make changes to work approvals	✓
A call centre to answer your queries and provide support	✓
An online portal or a manual submission process to lodge your reporting obligations	✓
Help in registering to use our online portal as well as providing training and any other customer support as required	✓
Access to educational information either on the WaterNSW website or sent directly to you	✓
Ensuring the data that is submitted to WaterNSW by DQPs is accurate and correct (supporting your compliance)	✓
Contacting water users who do not self report to remind them of their obligations	✓
Providing a mechanism to make declarations avoiding monthly self reporting when no water is being taken	✓
Reconciling water take from LID to what has been self reported to ensure accounts are managed accurately	✓

~$77

Privately owned meters

Benefit	With telemetry	Without telemetry
Access to the telemetry system required to support compliance or for WaterNSW to download the data from your LID	✓	✓
The ability to report that your metering equipment is faulty which is a water users obligation	✓	✓
A collection repository for your compliance information easily accessible by other agencies reducing the administrative burden on water users	✓	✓
Verification of meter master data at the point of collection and on site	✓	✓
Access to industry experts if required during the annual site visit		✓
Access to technical and user support if telemetry has been installed	✓	
Ability to opt in to telemetry		✓
Access to your water take data	✓	✓
Firmwear upgrades to your LID	✓	
Ensuring your water account is accurate and upto date to assist water users make more effective decisions and support operational requirements	✓	✓

120

$254 - $345

Government owned Meters

Benefit	Included
My Meter is made compliant for a small annual fee	✓
I don't have to pay for meter compliance upfront like those without a government owned meter - I am allowed to spread my payments over multiple years	✓
WaterNSW takes all the hassle and takes the responsibility for making the meter compliant so I can focus on my business	✓
I get access to telemetry and the data to make more informed business decisions	✓
My meter is maintained for one fixed charge per annum offering a no hassle service allowing me to budget with confidence	✓
I don't have to worry about the meter equipment breaking down and all the hassle that goes with it	✓
I don't have to find a DQP or undertake the expected annual meter maintenance obligations	✓
If I need help accessing my data, help is only one phone call away	✓

$1,700 - $1,870

Recap: Government Owned Meters

1. The Meter Service Charge proposed provides a fixed annual charge for water users and **risk free** service
    a) **Current Meter Service Charge covers alarm management and reactive repairs (no planned maintenance)**
2. Proposed annual cost ($601) for making meters compliant only recovers 47% of WaterNSW's proposed costs in this determination period, WaterNSW carries the risk should customers subsequently opt out
3. Customers can opt out if they don't believe this offers value for money

Summary

1. Our submission was designed to **support water users/customers** in meeting their obligations and minimise any risk of non-compliance.
2. **Costs allocated** by **licence and meter** rather than by entitlement as water user obligations are similar irrespective of pump or entitlement size
3. WaterNSW's submission sought to provide water users **value for money** and **remove barriers to the uptake of telemetry**
4. Customers with Government owned meter **customers can opt out**
5. Obligations for compliance to the non-urban metering reforms remain the **responsibility of the work approval holder**
6. WaterNSW has worked with IPART to **drive down Revenue Requirement and in turn customer costs**

IPART Economic Framework Review

Jonathan Dickson
Manager Customer and Industry Relationships

Engagement Landscape

Jonathan Dickson
Manager Customer and Industry Relationships

Customer Conversations

Timing: After the Draft report from IPART (March 21), we propose to continue broadening our Engagement

Involves: CAG membership will form the basis of those engaged, with the addition of a wider community of customers and water users

Objective: We need your help. Ensuring that we propose investment that reflects our customer's views (noting, investments ultimately influence IPART's decision on customer prices)

Three Stages	Detail
Conversation kit	Booklet shared with 2,000 water users (printed and online) Kitchen table conversations is a small group of people getting together to talk and respond online with their summary thoughts
Paired Conversations	Facilitated online meetings on emerging themes Common themes discussed with groups from submissions to Conversation Kit
Concise Themes	"What are the real questions you want answered" Online sessions identifying the tradeoffs and priorities on important themes toward the next Pricing Determination due in 2024

Thank you

Please don’t forget to complete the online survey you will receive by email after the meeting