Meeting notes

Manning River Estuary and Catchment Management Program (ECMP) Community Reference Group

Date	23 April 2021	**Time**	10am -12.30pm
Venue	MidCoast Council – Boardroom, Yalawanyi Ganya	**Note-taker**	Prue Tucker
Present	Councillors Len Roberts and Katheryn Smith (Co-Chairs) Peter Longworth – Manning Delta Landholders Group (beef industry) Kirsty Hughes – community representative Tony Wales - community representative Peter Neal – Manning Delta Landholders Group (dairy industry) Peter Bignell – representing beef industry Rye Gollan – Hunter Local Land Services Josh Chivers – National Parks and Wildlife Service Paul Donaldson and Carla Sbrocchi– Department of Planning, Infrastructure and Environment Paul De Szell, Gerard Tuckerman, Louise Duff, Prue Tucker, Alisha Madsen, Evan Vale, Oleg Makarynskyy, Peter Hatton – MidCoast Council		
Apologies	Councillor Dr David Keegan John Harris – Recreational fishing Ian Crisp – Manning River Oyster Farmers' Association Chris Scott – Manning Landcare Noel Piercy – community representative Andre Uljee – Transport NSW Sam Nicholson – MidCoast Dairy Advancement Group Neil Kelleher- DPIE Joedie Lawler - CEO Taree Purfleet Local Aboriginal Lands Council		

Meeting Notes

Item	Key points/actions
1	Councillor Roberts opened the meeting, acknowledged the traditional owners and welcomed all to the fourth Manning River Estuary and Catchment Management Program Reference Group meeting.
2	Flood Debrief Part 1: Evan Vale, Team Leader Coastal, Flooding and Drainage **(Attachment B)** • Flood presented different levels across the catchment some locations were considered 1:100year event and others higher and lower • Coastal rainfall, heavy falls throughout the weekend directly impacted on floodwater levels • Fortunately there were very low tides during the event, flood levels at Harrington were lower than expected • This event didn't have a storm surge as it was not a low weather system from the coast • Some places (e.g. Manning Point) were flooded by stormwater not floodwater: elevated river levels prevented stormwater from escaping • Water levels quickly returned to normal levels within the Manning • Post-flood ocean tidal range at Taree matched the tidal range at the ocean due to increased efficiencies of the opening and increased tidal range in the lower estuary • Council staff collected bathymetry data across Harrington and Farquhar to determine the change in the entrances • BOM issued warnings that were not consistent with what was being recorded in the field for example it was reported that Croki was minor flooding when in reality it was major. • Council staff reported on-ground situation to the BOM staff numerous times to alert them to the actual levels. • Old Bar Manning Point CMP will deal with Farquhar opening strategy and determine if it needs review. • Scope of Manning River ECMP is 2km in from the coast and includes the estuary and catchment. Flood Debrief Pt 2. (Alisha Madsen, Catchment Officer, Natural Systems) Council's Catchment Officer Alisha Madsen explained her experience during the flood on her family's turf farm in Taree Estate. Moderate flood levels were predicted and early Saturday it was noted that the evacuation warning was too late to leave the property. These kinds of events are an opportunity to learn and inform the management of our catchment.

Item	Key points/actions
	• It was noted that trees and Lomandra established along the riparian zone held the banks together and slowed the impact of debris moving across the property. • Different parts of the estuary were impacted differently e.g. Wingham Brush saw trees snapped off with the impact of the flood velocity • Predictive models have limitations, ideas for preparedness include looking at data, talking to people upstream, this is based on personal experience. Comments were received relating to: • Council's Community Recovery Officer is working on building the community's capacity to respond to disasters like fire and flood. • Lived experience helps with preparation for flooding. Videos are being prepared through Councils resilience program. • This recent flood is an opportunity for the SES to update the flood action cards. • Predictive models should be used in conjunction with previous experience from other floods and local observations to inform decision making and flood warnings. • Floods are an opportunity to capture fertility on the floodplain and without trees in places like Oxley Island this is not possible. • One member noted there was a lot of rubbish on the beaches but not many bottles – perhaps this is a positive outcome from the container deposit scheme.
3	Presentation – climate change risks for the Manning Estuary: David Wainwright, Consultant Salients **(Attachment C**) • Modelling indicates SLR is not going to have a significant impact on infrastructure in the mid estuary. • In the lower reaches there will be additional inundation and greater impacts. • If the entrance is modified there will be larger tides being pushed further upstream. • Exacerbation of ASS impacts and more saline conditions within the estuary, algal blooms and estuary health impacts are also probable. • Actions in the ECMP will help mitigate the impacts of smaller flooding events. These actions will help with adaptation to climate change.
4	CMP Update – status update and key dates **(Attachment D)** • Louise commenced by thanking our reference group members for their contribution to the ECMP planning process.

Item	Key points/actions
	• Of the 127 actions reviewed by the Reference Group, 45 have gone into the ECMP. • Some actions will be led by complementary programs e.g. flood program, water resilience program). These complementary programs will be referred to in the ECMP and will be tracked through the reference group to ensure that all the actions (across programs) are implemented • Some actions have been amalgamated and some were excluded due to repetition or movement to the monitoring, evaluation and science programs. • Salients consulting are undertaking feasibility and viability analysis. All the actions have been identified as legally and technically feasible. • Business plan (funding) for the delivery of the CMP is currently being developed. • Council staff have been having discussions with The Nature Conservancy who are working closely with HSBC bank to develop a framework for 'blue bonds' which is a way of sourcing funds from private investors – this project is very early in its development. • CMP builds a case for securing funding and opens up opportunities • Feedback is welcomed. Reference Group members will receive a pre-exhibition draft (not for distribution). • Comment is welcome throughout the exhibition period from 2 June – 9 July. Next Steps: • Council report pre-exhibition 2 June • Exhibition dates 2 June -9 July • Council report for adoption 28 July
5	Councillor Len Roberts thanked all for their attendance and contribution and closed the meeting.

Manning River Estuary CMP Reference Group Meeting Actions

Meeting	Action	Status
7 Oct 2020	Present draft Manning catchment spatial management prioritisation (decision support) tool to Reference group for comment	Carried forward

7 Oct 2020	Present draft Local Environment Plan land-use zonings to Reference Group	Carried forward
7 Oct 2020	Check the strategic planning actions against the Exempt and Complying SEPP to make sure that we are not encouraging inappropriate development.	Carried forward
23 April 2021	Hold a meeting to present exhibition comments to the committee prior to adoption	

Next meeting

Date	July 2021 TBC	Time	TBC
Venue	MidCoast Council – Chambers, Yalawanyi Ganya		
Note taker	TBC		

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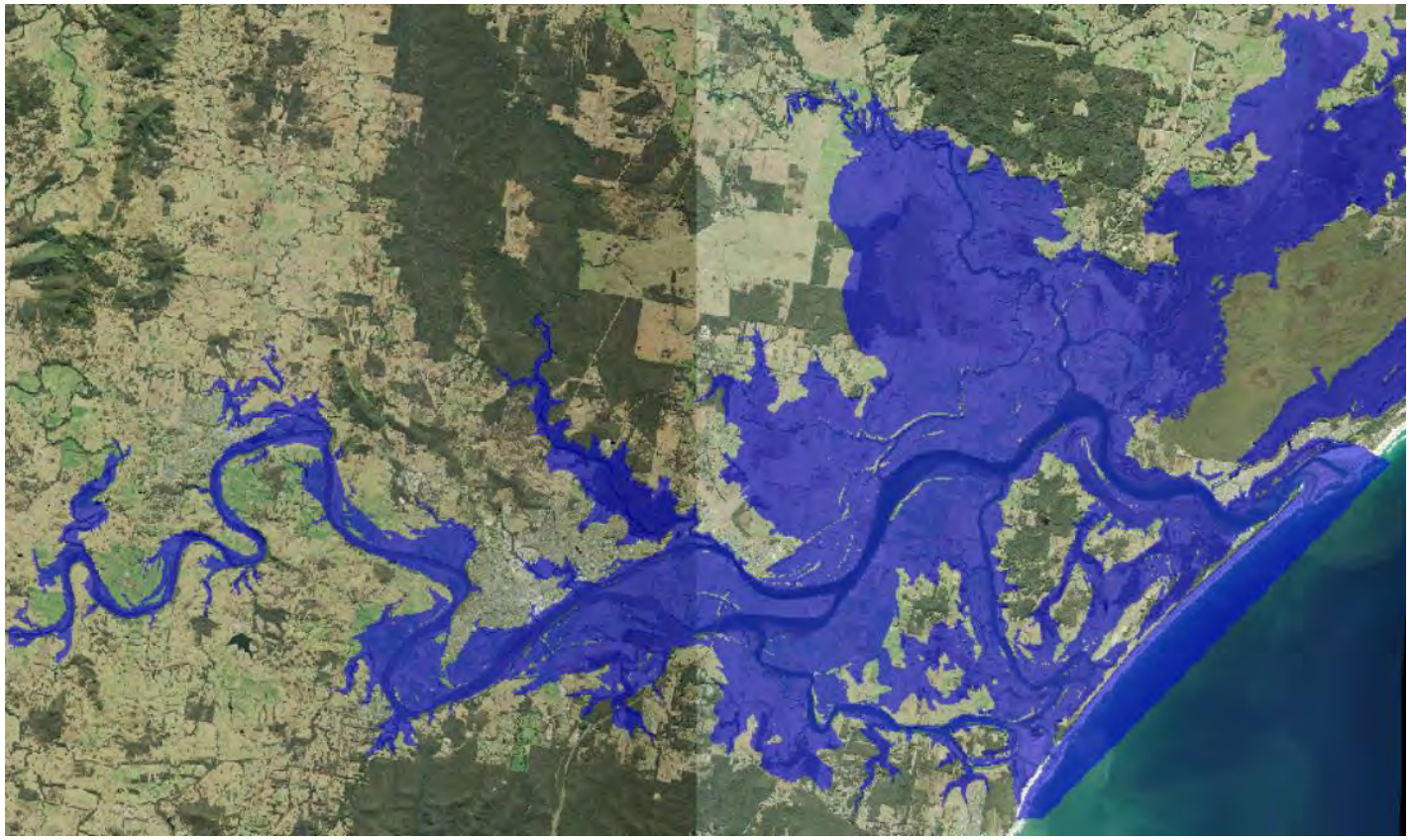
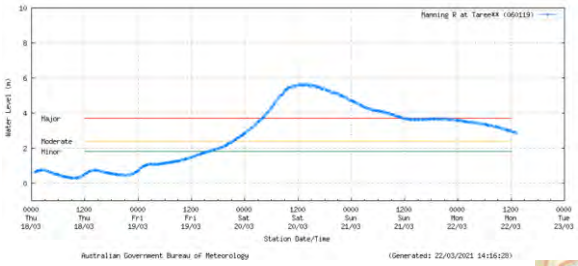
Flood Summary 19-23 Mar 2021

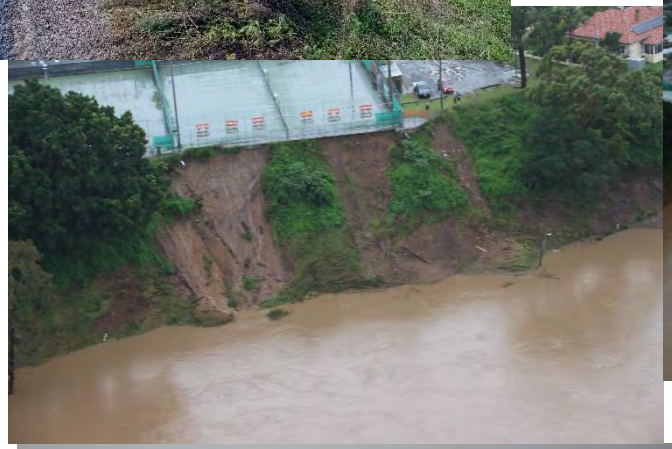


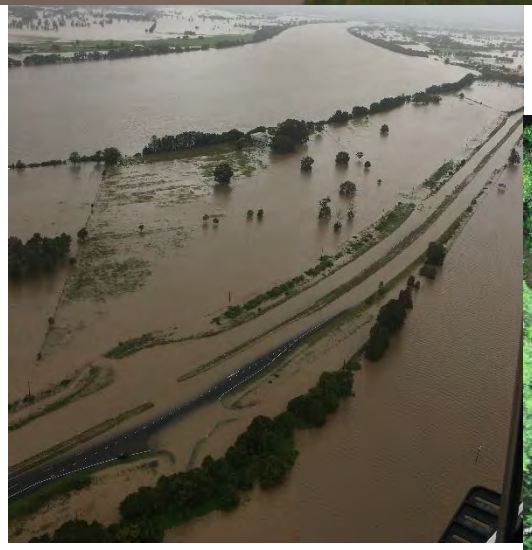
Manning - 1 in a 100?



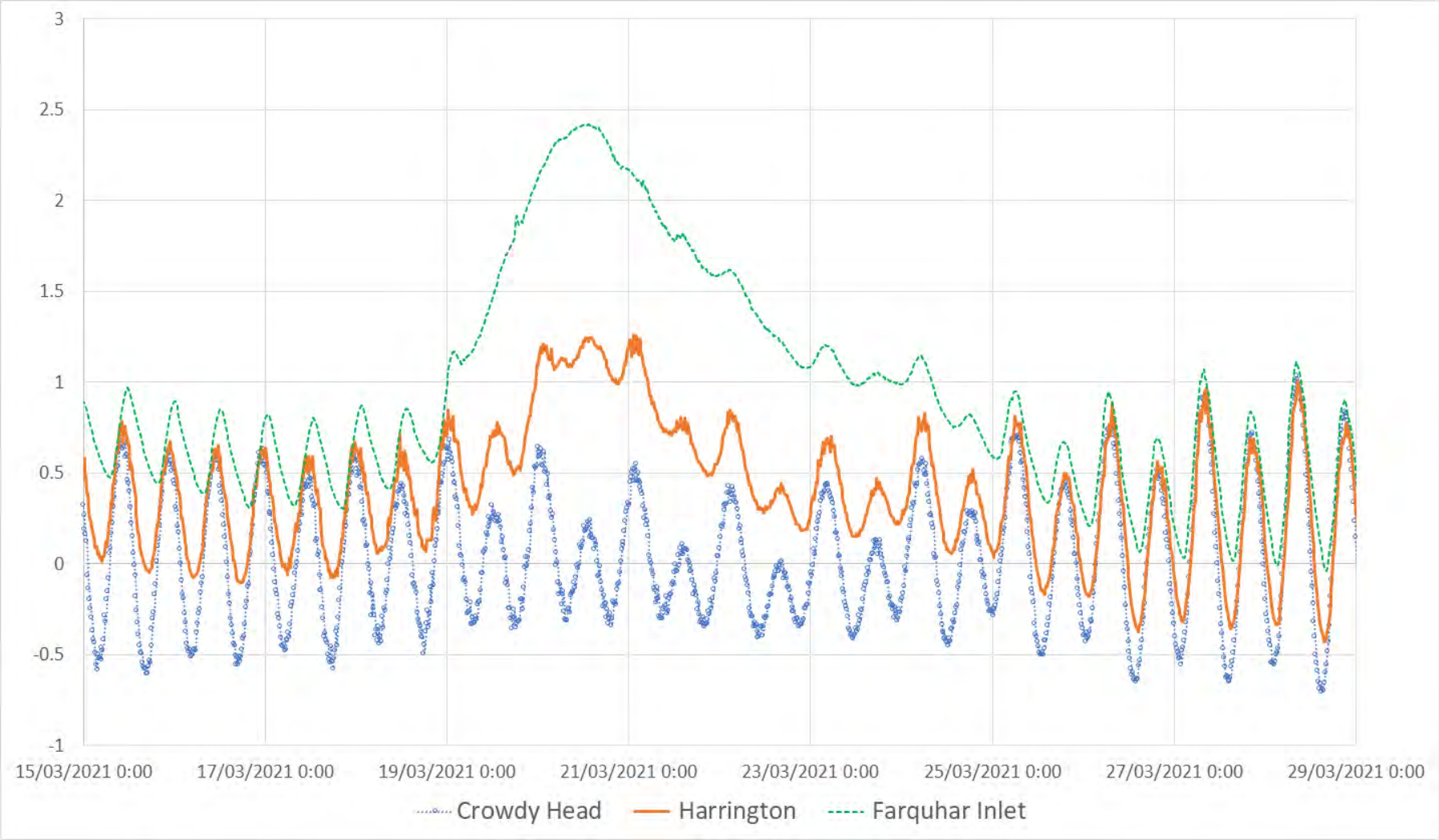
Catchment	Location	Modelled Peak 1% AEP (m AHD)	Recorded Peak (m AHD)	Event	Confidence/Comments
Manning	Gloucester	93.0	91.3 (6.39m local gauge)	Between 2% AEP (6.8m) and 5% AEP (5.6m).	High
	Wingham	14.85	14.370	<1% AEP	Medium. Gauge went offline just after roll over and curve did not align after it came back online. Gauge could have been damaged.
	Taree	5.50	5.650	Between 1% AEP and 0.5% AEP (5.8m AHD).	High. 1929 event level 5.9m. 1978 event level 5.75m AHD.
	Dumaresq Island	4.17	4.249	>1% AEP	High
	Croki	2.82	2.996	>1% AEP	High
	Lansdowne	10.47	9.93	<5% AEP	Low. However, was the second highest recorded level at the gauge location (1929 event level 10.47m AHD). The modelled levels seem too high.
	Farquhar Inlet	2.16	2.420	>1% AEP	High
	Harrington	1.97	1.264	<20% AEP	Low. Need to check the gauge as seems to be very low. Could be low tidal/surge influenced.

Manning Photos

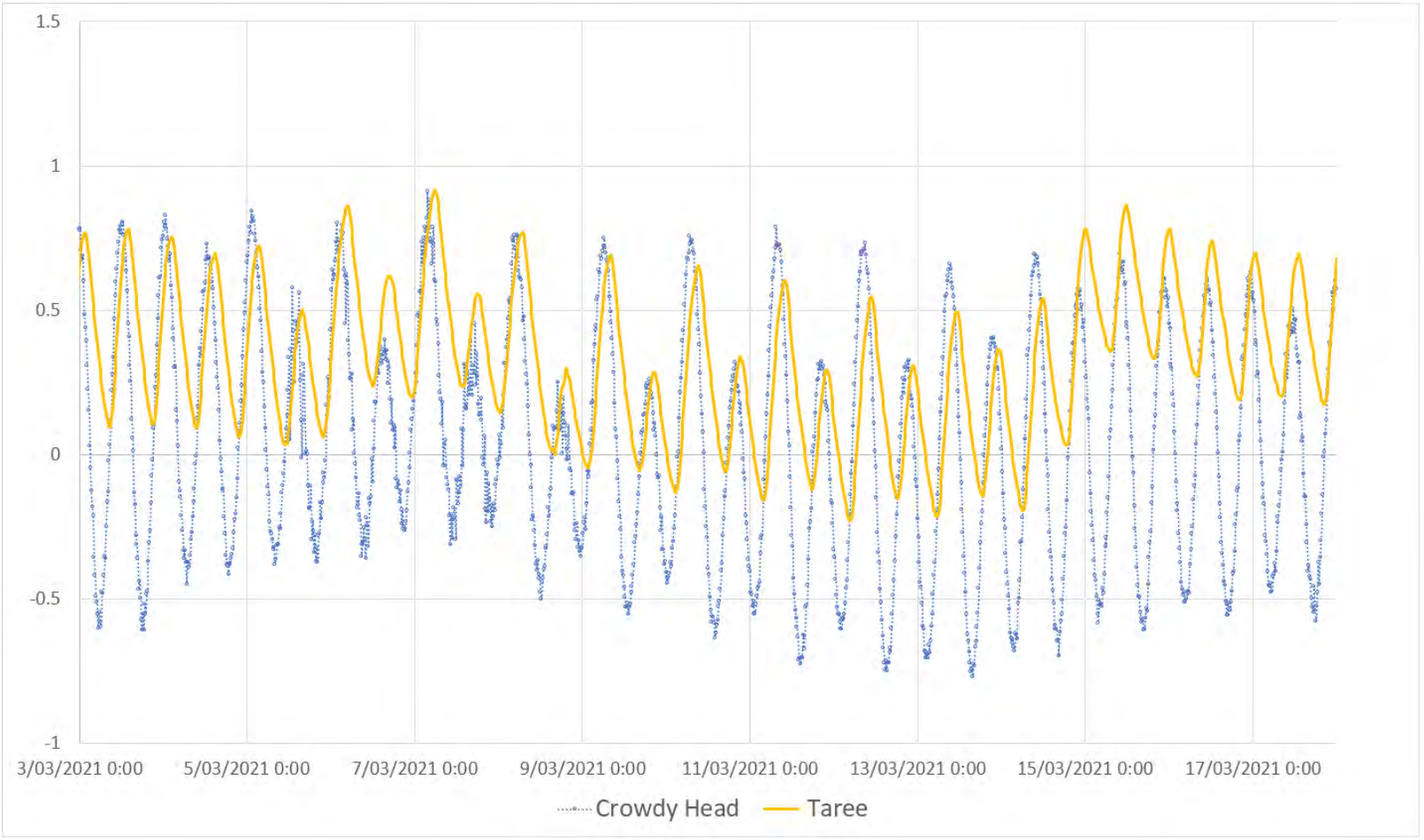




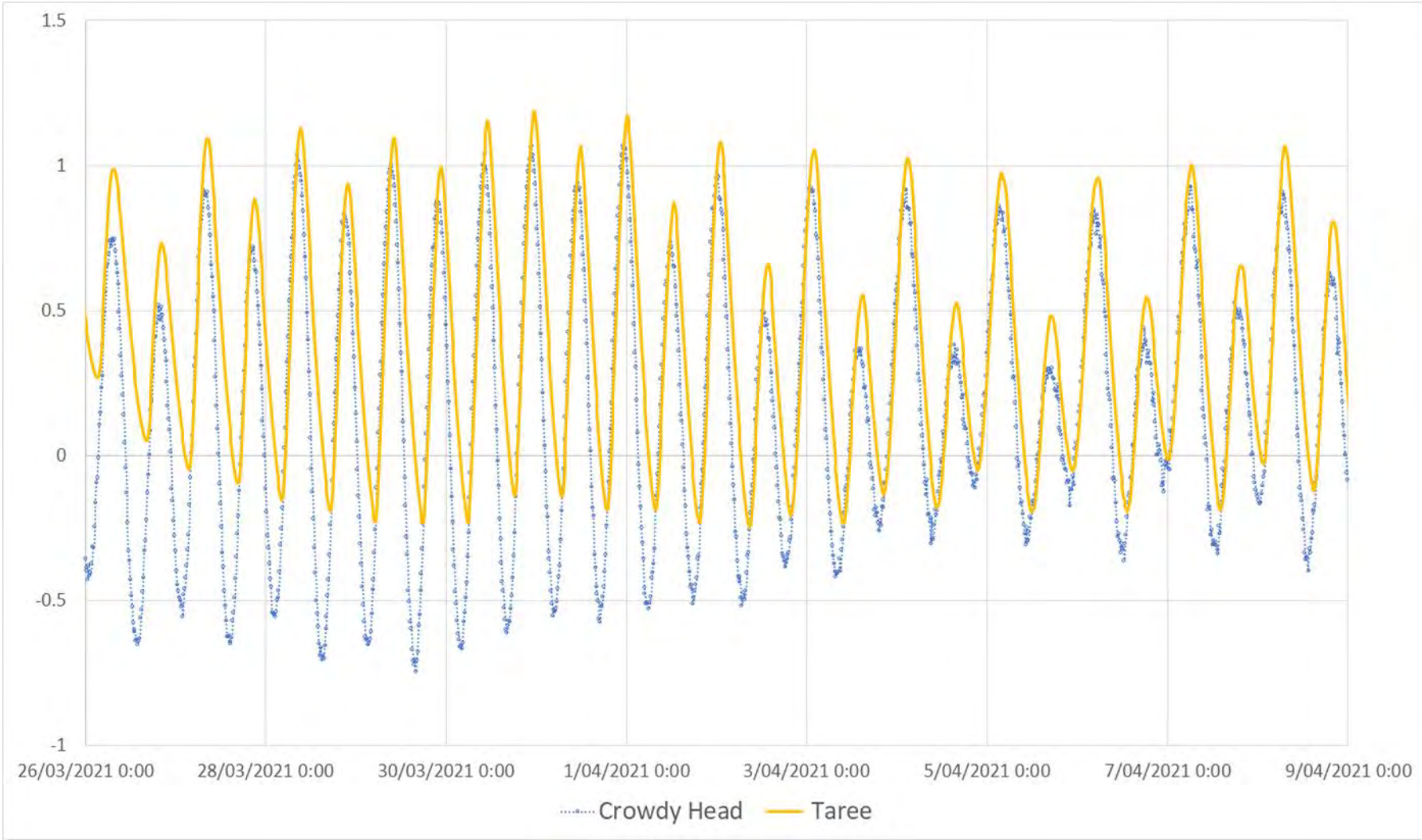
Influence of Entrance Efficiency



Tidal Range at Taree – pre flood



Tidal Range at Taree – post flood



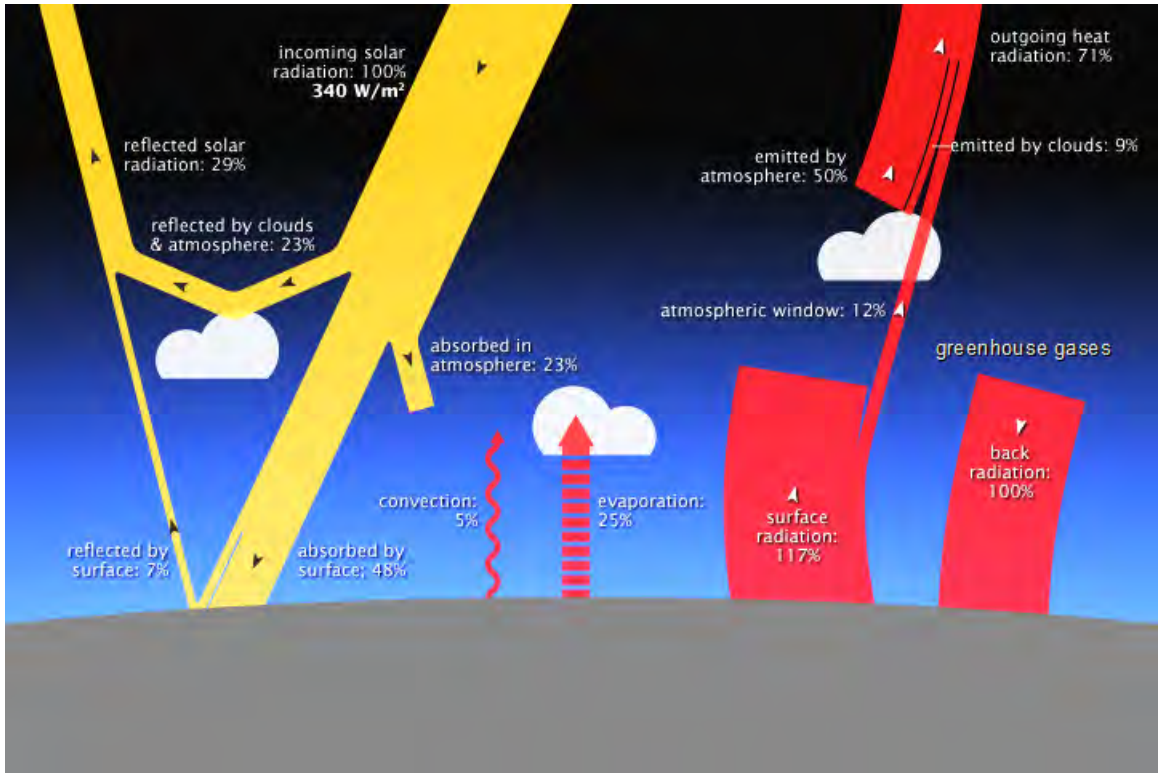
Questions?

Climate Change Issues Analysis

Manning River Estuary CMP Reference Group Meeting

April 23 2021

Climate Change



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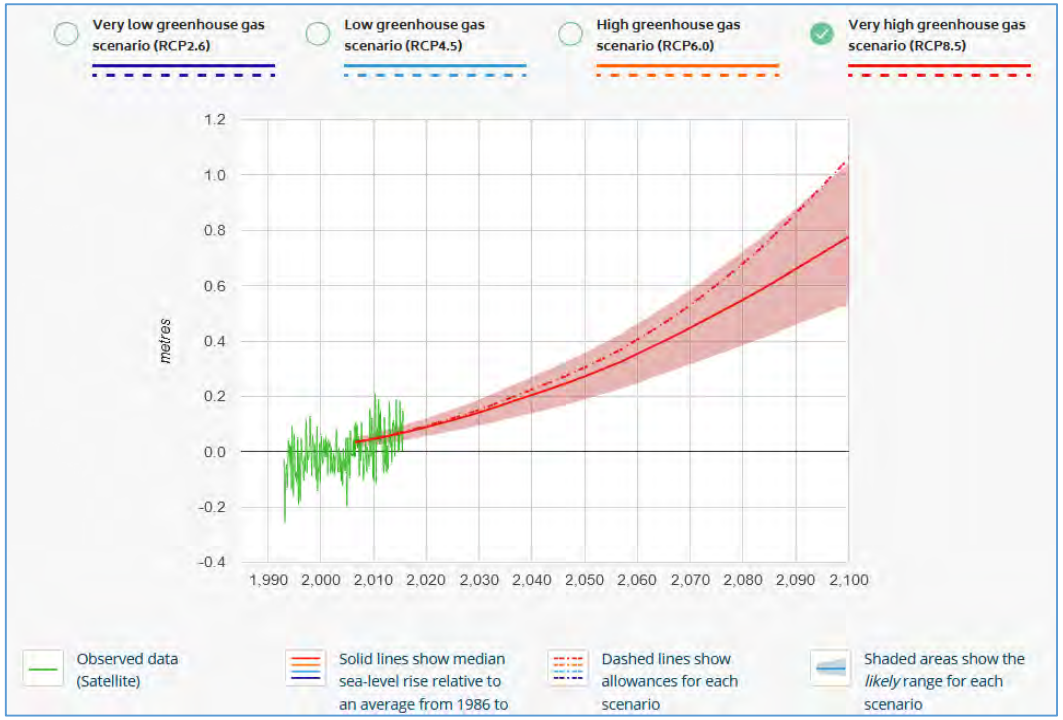


Threats

Threat 1 – Sea Level Rise

Threat 2 – More Intense Extreme Rainfall

- A warmer atmosphere can hold more moisture

Threat 3 – Overall Drier Catchment

- A warmer climate = drier catchment
- Droughts expected to become more prevalent

Threat 4 – Warmer Water

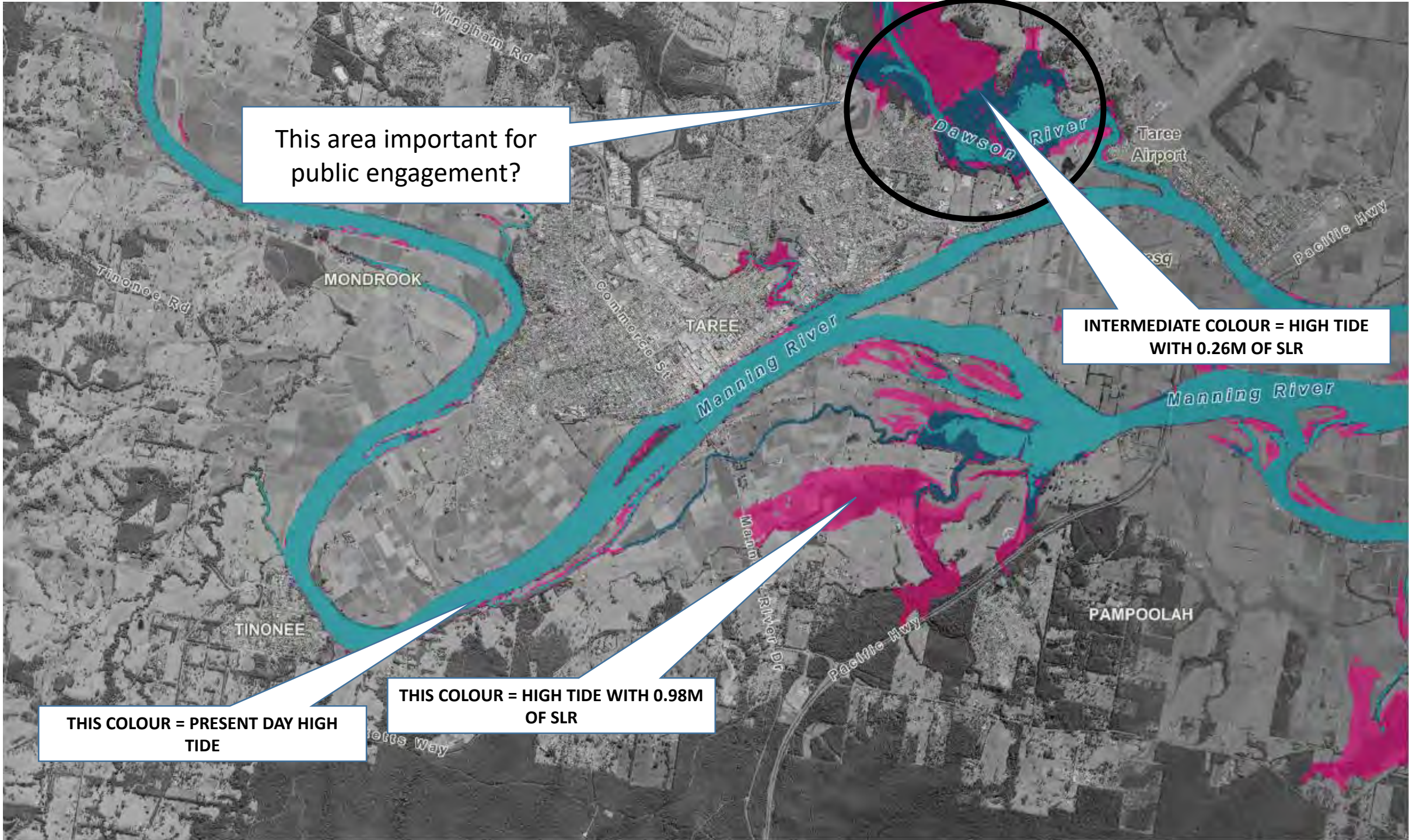
- Water in estuaries will heat up in line with the warming of the planet
- By 2040, estimated ~1 more degree of warming (1 degree has already occurred)

KEY TAKE HOME MESSAGES:

WE WILL CONTINUE TO SEE IMPACTS OF INCREASING INTENSITY.
IT SEEMS WE HAVE AROUND 20 YEARS BEFORE THE IMPACTS REALLY BEGIN TO 'BITE'.
WE NEED TO UNDERSTAND THE IMPLICATIONS AND BEGIN PLANNING NOW – DURING THE NEXT ITERATION OF THE CMP.

Impact 1 – Additional Inundation

- We used GIS layers generated by OEH in 2018
- Can’t show those layers in maps – impacts are described in our Issues Paper
- We can show the results of flood modelling: +0.28 for (~2040-2050), +0.98 for (~2100) or so
- 38km of “road” inundated with 0.5m of Sea Level Rise (mostly “tracks” and local roads)
- Upstream freshwater reaches may be impacted by changes in tide


This area important for public engagement?
INTERMEDIATE COLOUR = HIGH TIDE WITH 0.26M OF SLR
THIS COLOUR = HIGH TIDE WITH 0.98M OF SLR
THIS COLOUR = PRESENT DAY HIGH TIDE
Wingham Rd
Dawson River
Taree Airport
Pacific Hwy
Tinonee Rd
MONDROOK
Commerce St
TAREE
Manning River
Manning River
Manning River Dr
PAMPOOLAH
TINONEE
Pacific Hwy


Crowdy Bay
National Park
Lansdowne River
Pacific Hwy
Crowdy St
Manning River
Harrington Rd
?
HARRINGTON
Tasman Sea
Manning Point Rd
MANNING
POINT
Mitchells
Island

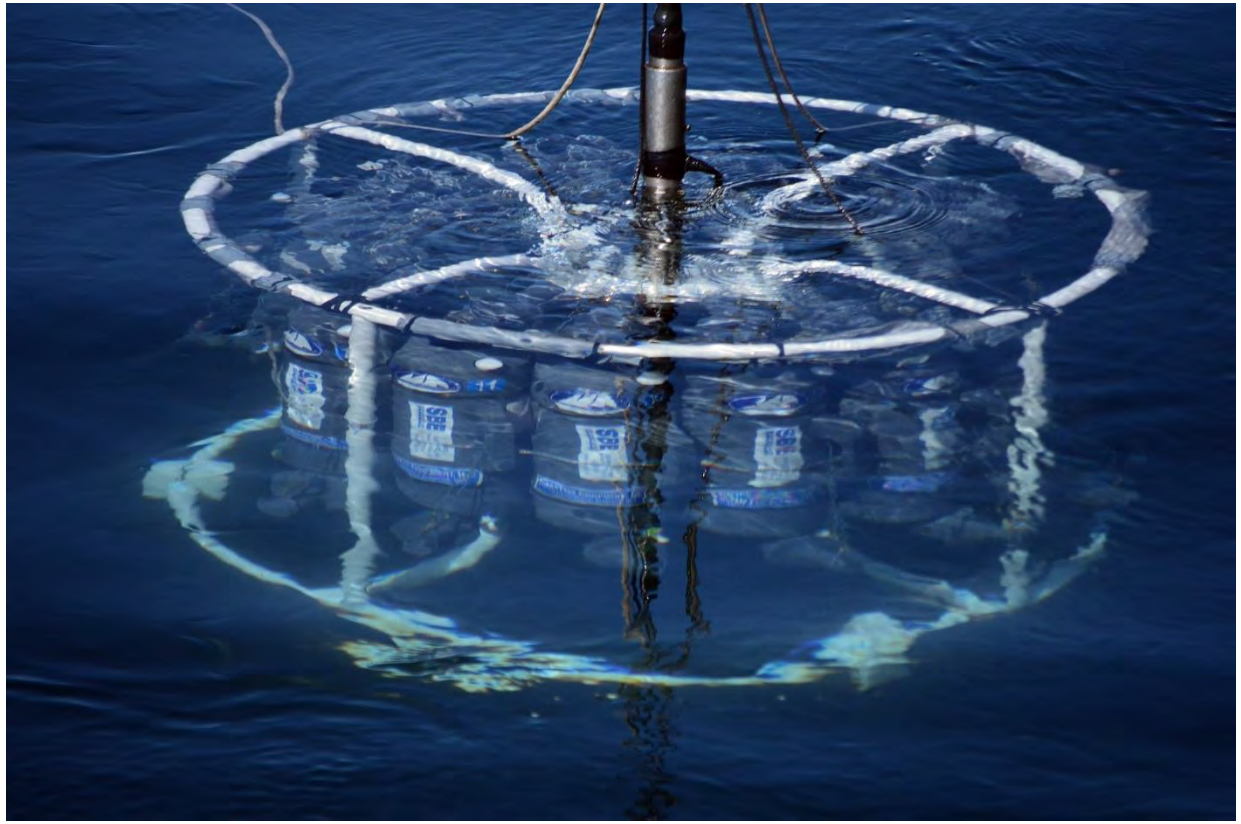
Impact 2 – Sediment Dynamics

- Drier catchment with more extreme rainfall = more extreme erosion
- Entrance modifications uncertain. However, more sand likely to be carried into the estuary
- All depends on what happens with the entrance options now being considered – if something significant changes – the impacts need to be assessed

Impact 3 – Water Chemistry

- Complex
- More dissolved $C0_2$ = more acidic ocean
- Changes in tides influence acid sulfate soil generation
- Less runoff, higher water levels = more salty water
- More stagnant (standing) water = more algal blooms

At the moment long term monitoring & review + preparation for adaptive management seem the most appropriate tools available

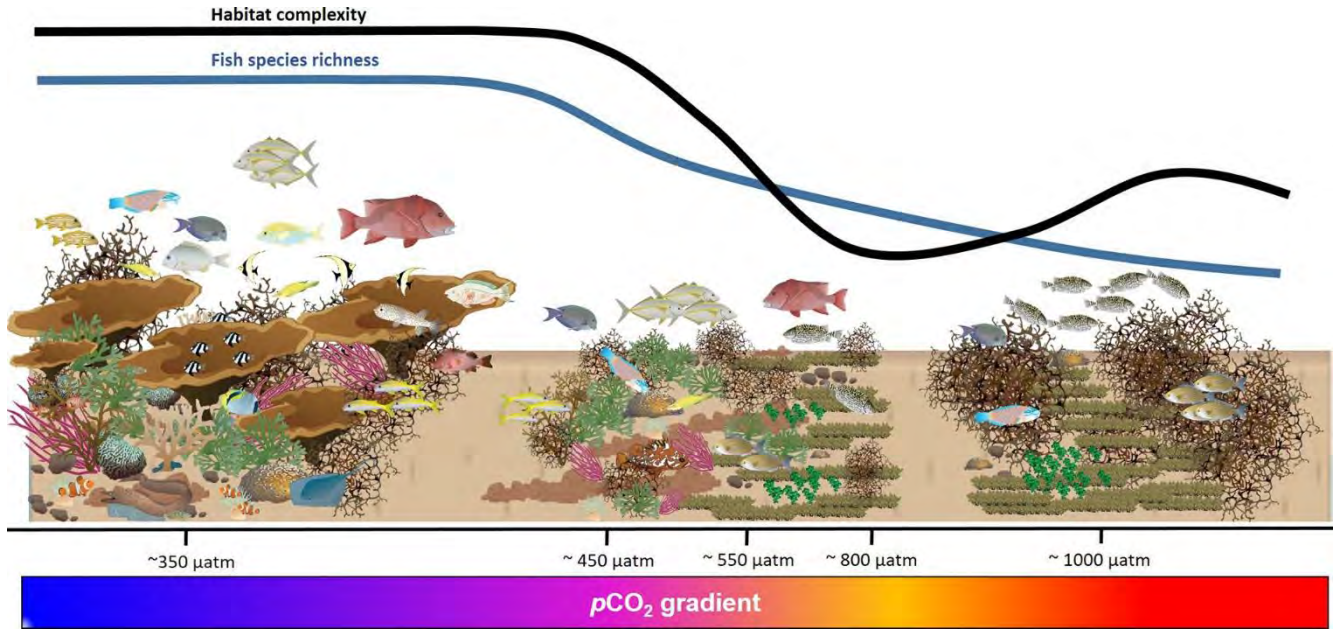


Impact 4 – Changes in Vegetated Habitats

- Land available for upshore migration of intertidal habitats (esp. saltmarsh)
- Habitats may be less robust

Impact 5 – Change in Fish Communities

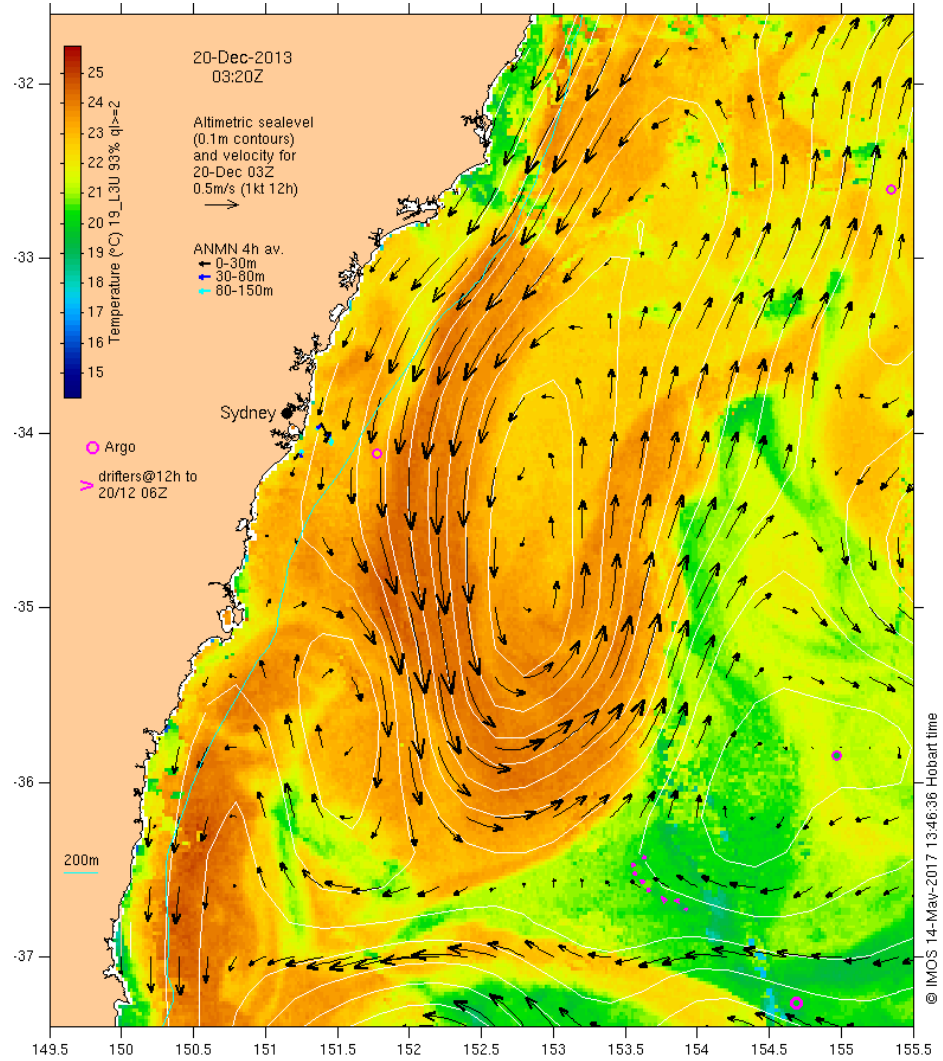
- In response to temperature and sea level
- Change of habitat availability is likely to change fish communities



[1]**Carlo Cattano, Sylvain Agostini, Ben P. Harvey, Shigeki Wada, Federico Quattrocchi, Gabriele Turco, Kazuo Inaba, Jason M. Hall-Spencer, Marco Milazzo (2020)** *Changes in fish communities due to benthic habitat shifts under ocean acidification conditions*, Science of The Total Environment Volume 725

Impact 6 – Tropicalisation of the Estuary

- More sub-tropical/tropical species as the water gets warmer
- Some new species may threaten ecosystem function, some may be of social or economic benefit (recreational or commercial fishing)



Impact 7 – Ecosystem productivity

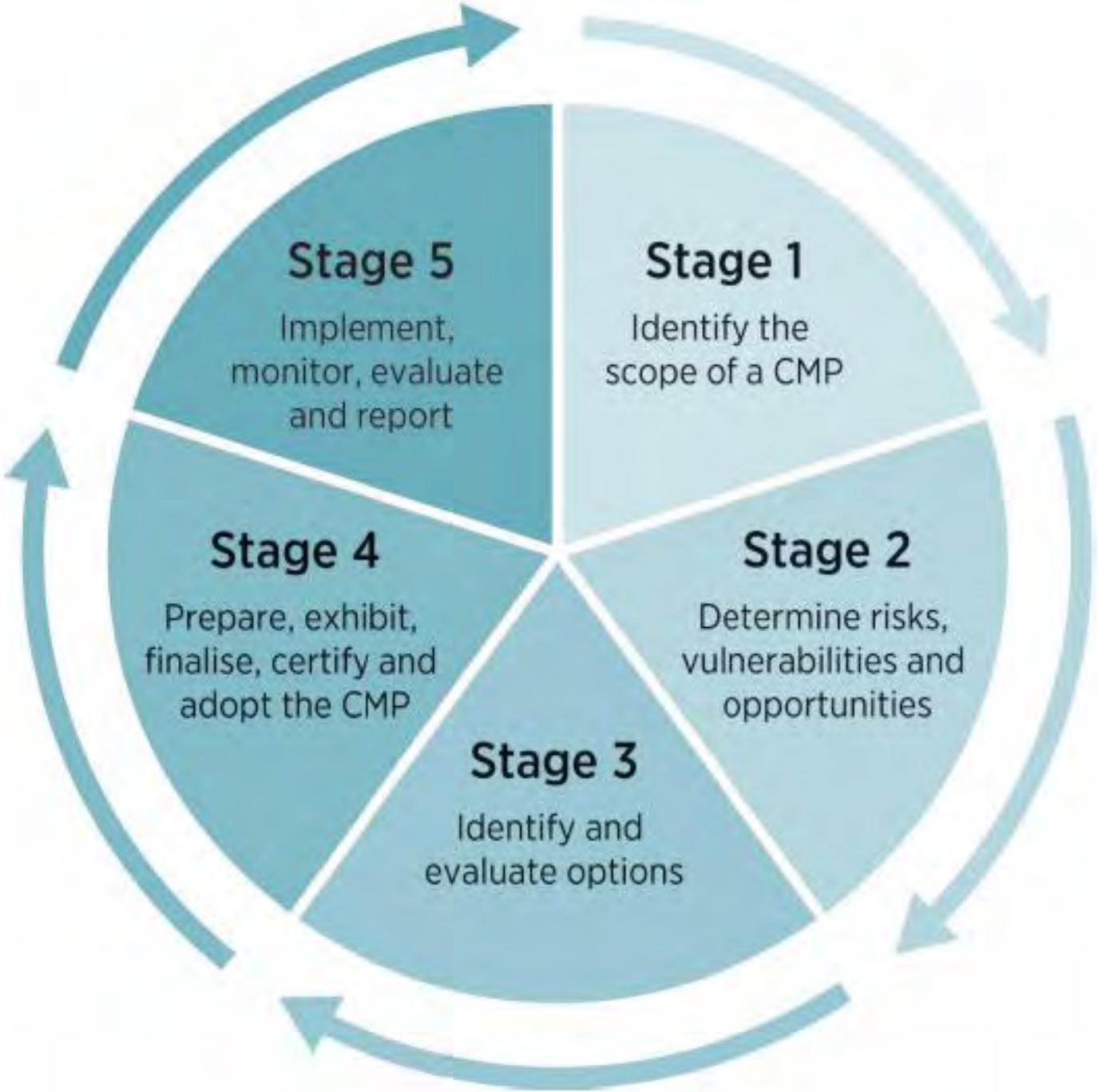
- Likely to change in response to habitat and fish community shifts
- Difficult to say whether direction of change will be positive or negative

Thank you

MANNING RIVER
ESTUARY & CATCHMENT
management
program

Community Reference Group Meeting

23 April 2021



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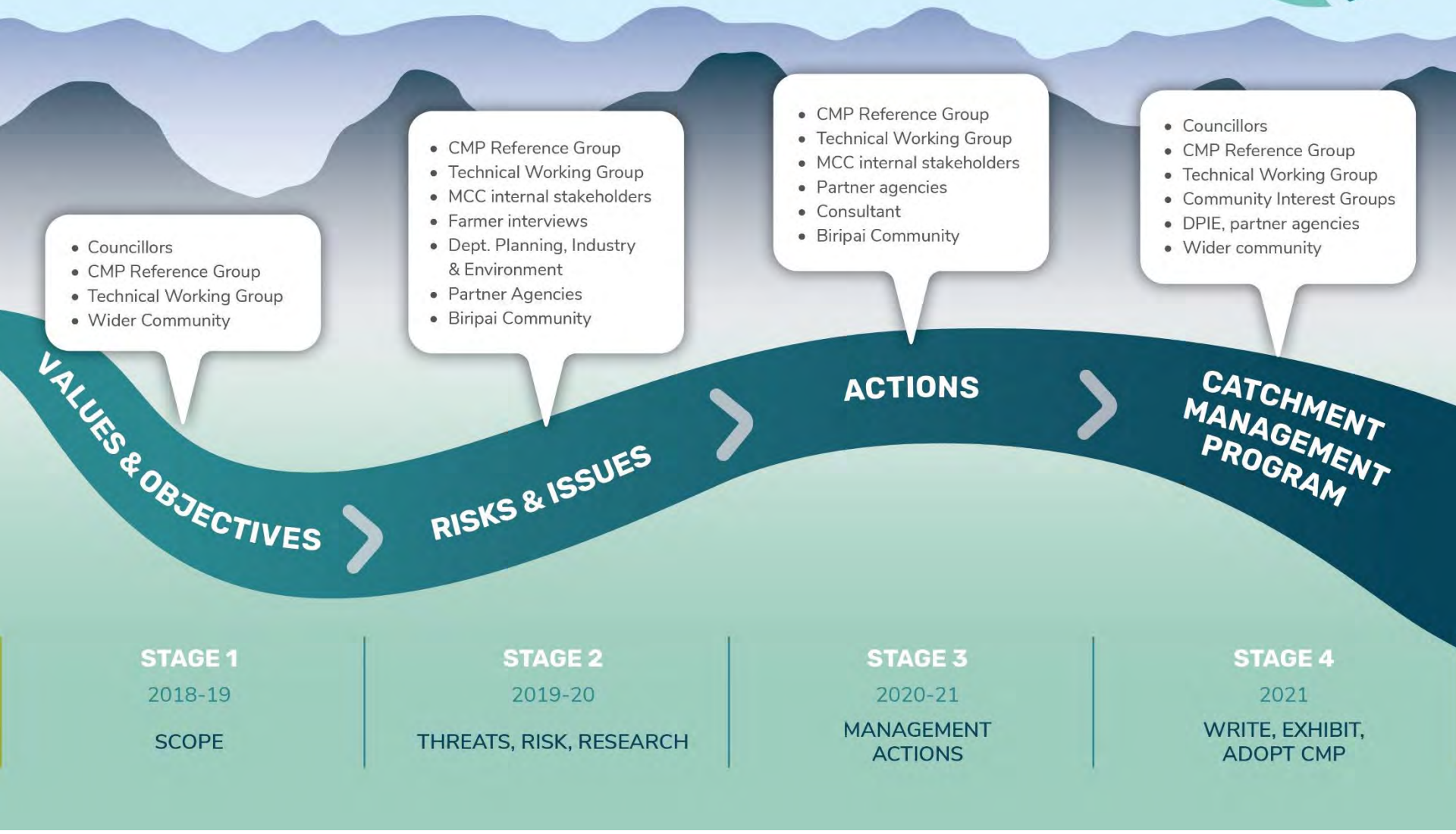
OVERVIEW OF CONSULTATION

MANNING RIVER ESTUARY & CATCHMENT management program



- Councillors
- CMP Reference Group
- Technical Working Group
- Wider Community

- CMP Reference Group
- Technical Working Group
- MCC internal stakeholders
- Farmer interviews
- Dept. Planning, Industry & Environment
- Partner Agencies
- Biripai Community

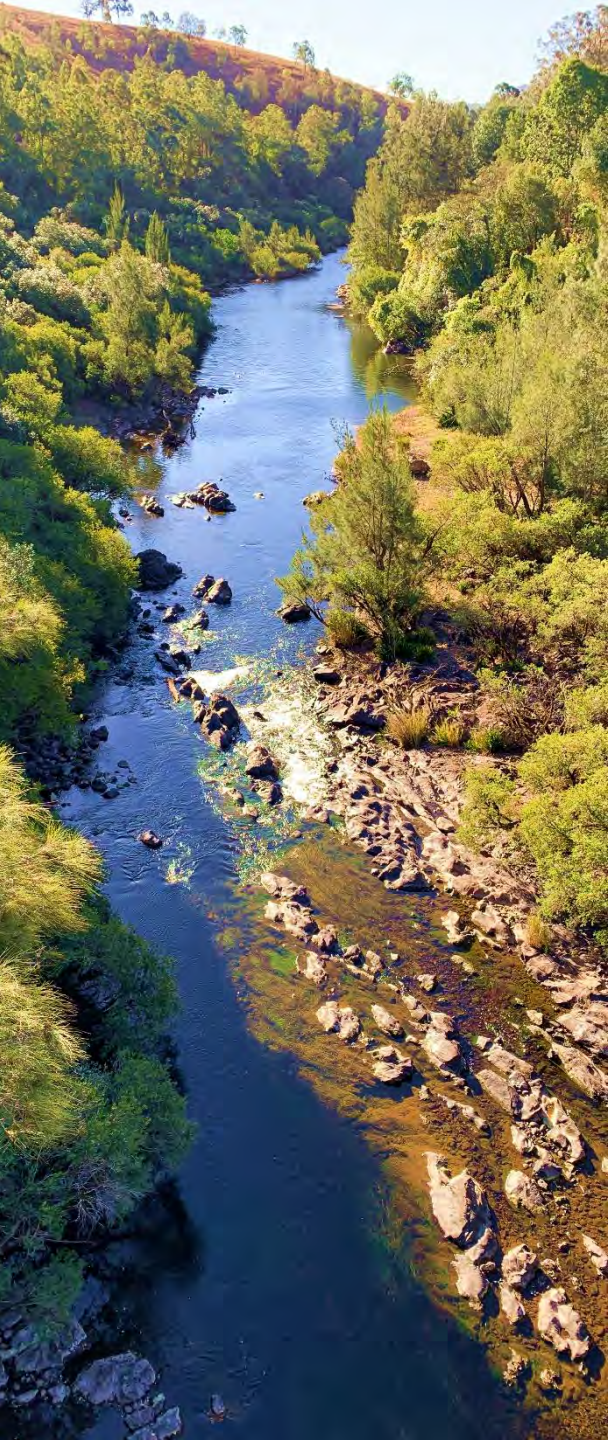
- CMP Reference Group
- Technical Working Group
- MCC internal stakeholders
- Partner agencies
- Consultant
- Biripai Community

- Councillors
- CMP Reference Group
- Technical Working Group
- Community Interest Groups
- DPIE, partner agencies
- Wider community

STAGE 1	STAGE 2	STAGE 3	STAGE 4
2018-19	2019-20	2020-21	2021
SCOPE	THREATS, RISK, RESEARCH	MANAGEMENT ACTIONS	WRITE, EXHIBIT, ADOPT CMP

Stage 3: Progress since October meeting

- Biripai consultation – PT LALC
- Community group consultation
- Finalise actions
  - ✓ S.M.A.R.T format
  - ✓ Lead agencies
  - ✓ CMP/alternate program/amalgamate
- Evaluate Actions - 95% complete
  - ✓ Evaluate legal and technical feasibility
  - ✓ Evaluate financial viability –
  - ✓ Prioritise the actions



Stage 4: CMP 85% complete

- ✓ Stakeholder engagement
- ✓ Values, vision, objectives
- ✓ Natural assets
- ✓ Threat and risk assessment
- ✓ Issue snapshot
- ✓ CMP actions
- ✓ Complementary Programs
- ✓ Evidence for proposed SEPP amendment
- ✓ Business Plan
- ✓ MERI Plan

Exhibition

- Summary document complete
- Web content ready
- Video
- Quick on-line survey
- Submission form
- Webinar
- Community drop-ins at Taree, Wingham and Gloucester
- Community group consultations: OzFish, Women in Dairy, Landcare, NSW farmers, Manning Aboriginal Working Group, Gloucester Environment Group, Team Taree

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Next steps

- 10-15 May: Exhibition preview to all key stakeholders
- 2 June – 9 July: Public Exhibition
- 28 July: Council meeting for adoption
- Submitted to DPIE for accreditation

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