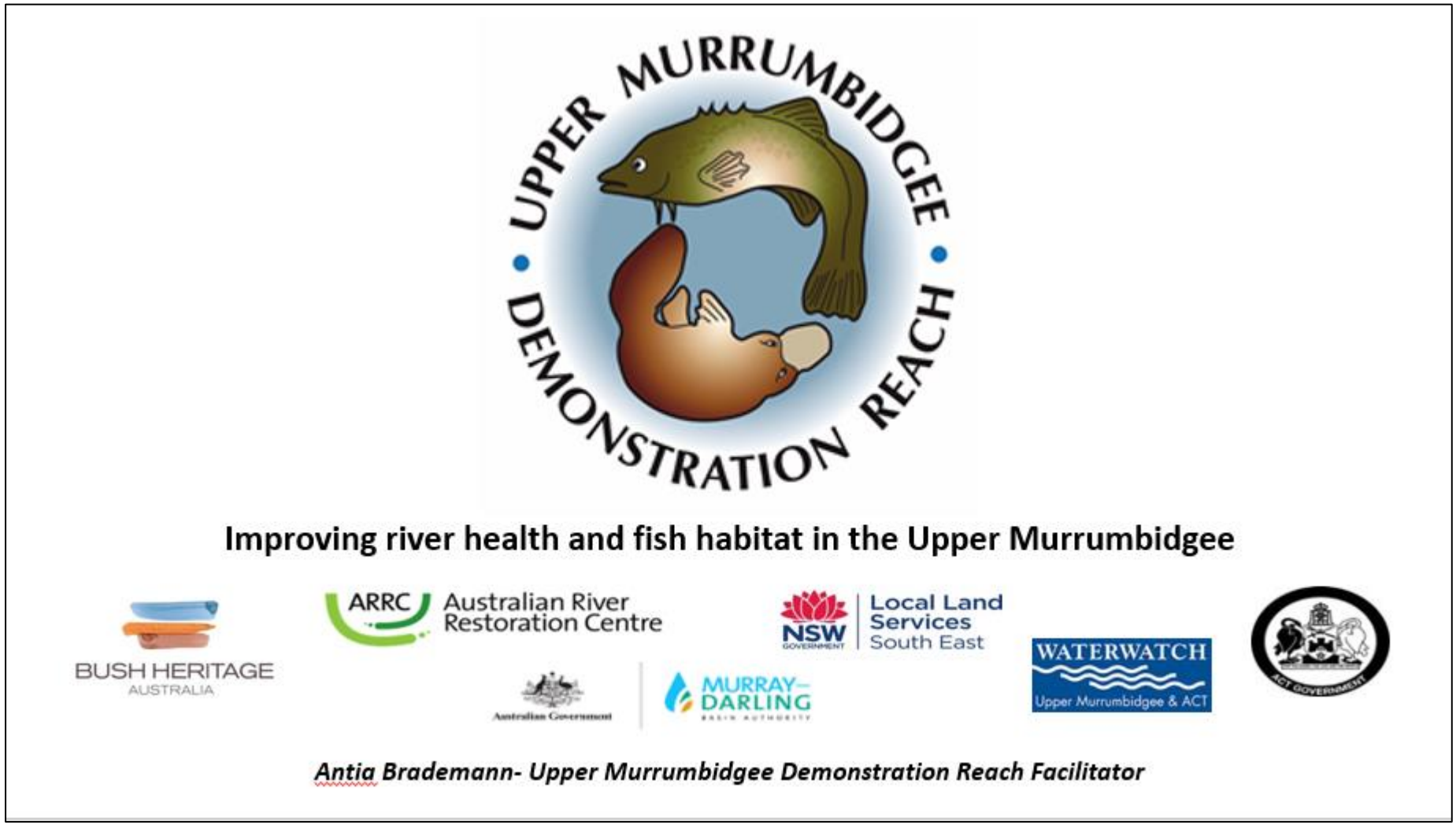
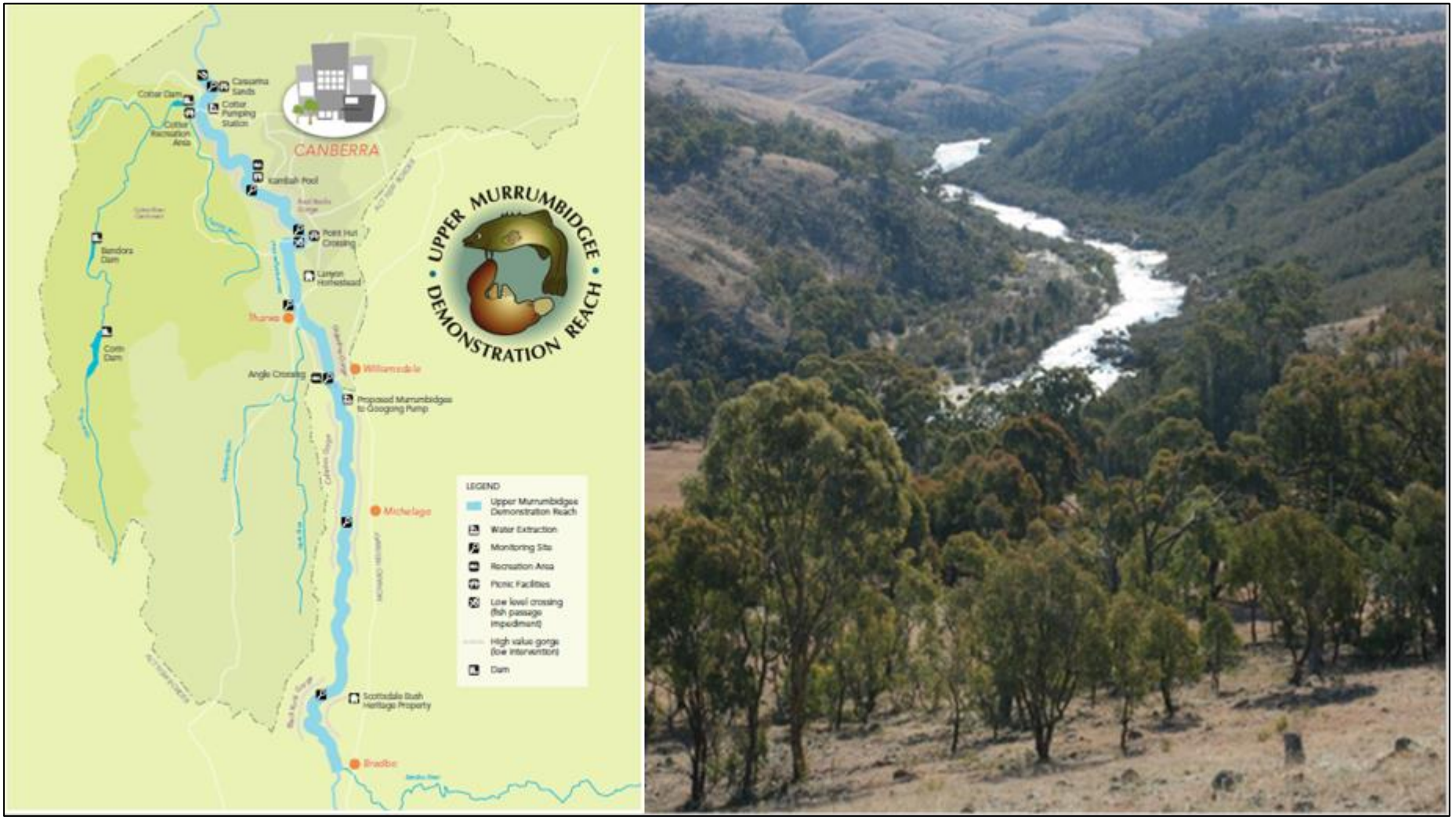
Upper Murrumbidgee Demonstration Reach Presentation to the Upper Murrumbidgee Catchment Network- 7 Feb 2018 (Presentation slides with notes)




Slide 1: This slide acknowledges the ongoing support of the core partners of the UMDR initiative.




Slide 2: UMDR History

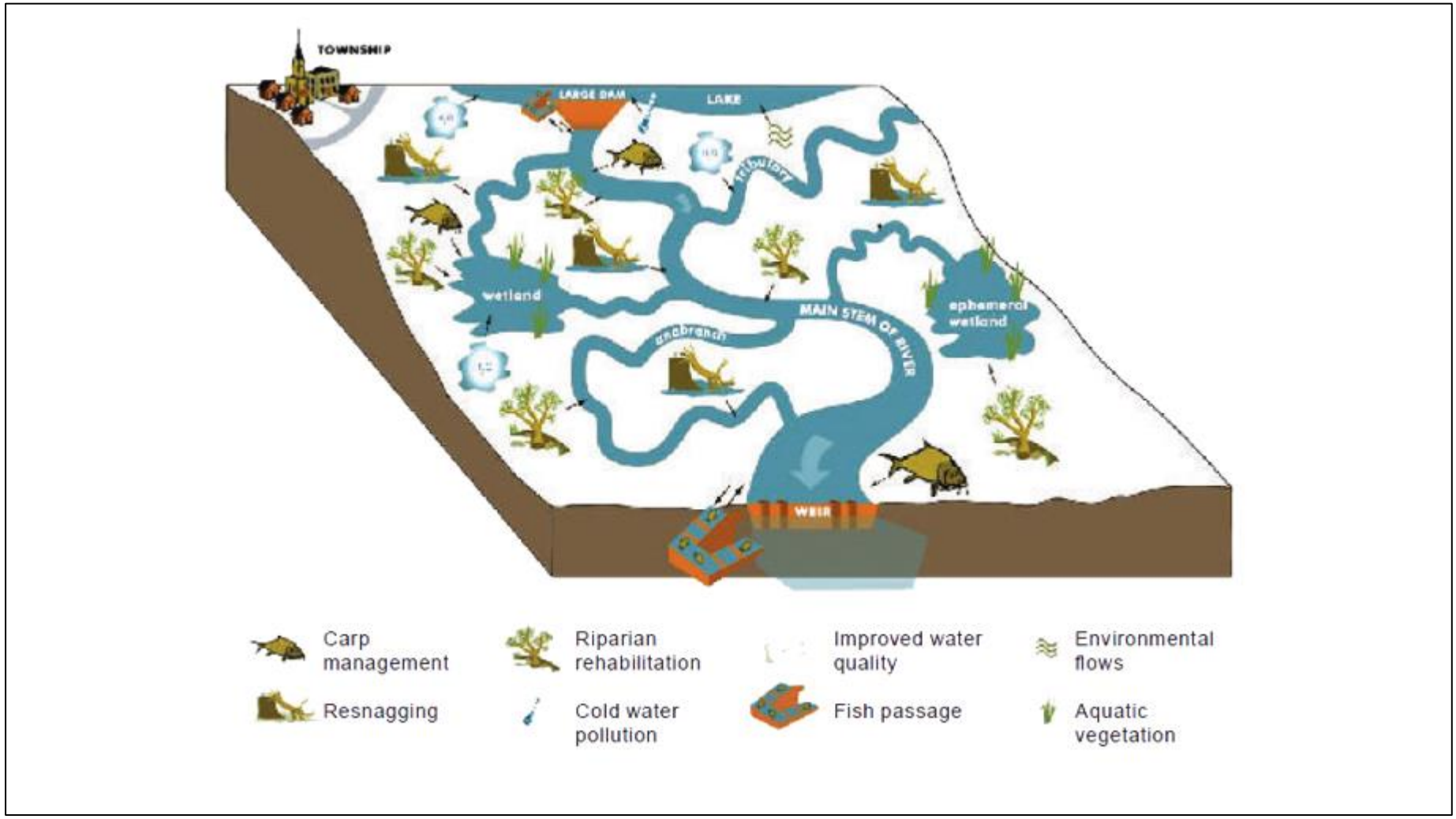
-The UMDR was established under the Native Fish Strategy by the MDBA in 2010.

-The Native Fish Strategy was developed in response to native fish decline to less than 10% of pre-European settlement levels.

-The UMDR focus area is currently defined as the Murrumbidgee River from Bredbo (NSW) to Casuarina Sands (ACT). Bush Heritage Australia's Scottsdale Reserve is situated at the top of our reach.

-When the UMDR was established, extensive planning and partner engagement was carried out, including the development of an Implementation Plan, a Carp Management Plan and a Communication and Engagement strategy.

-The UMDR had a funded coordinator until late 2011, after which the demo reach went into a hiatus due to the reduction of funding for the Native Fish Strategy.



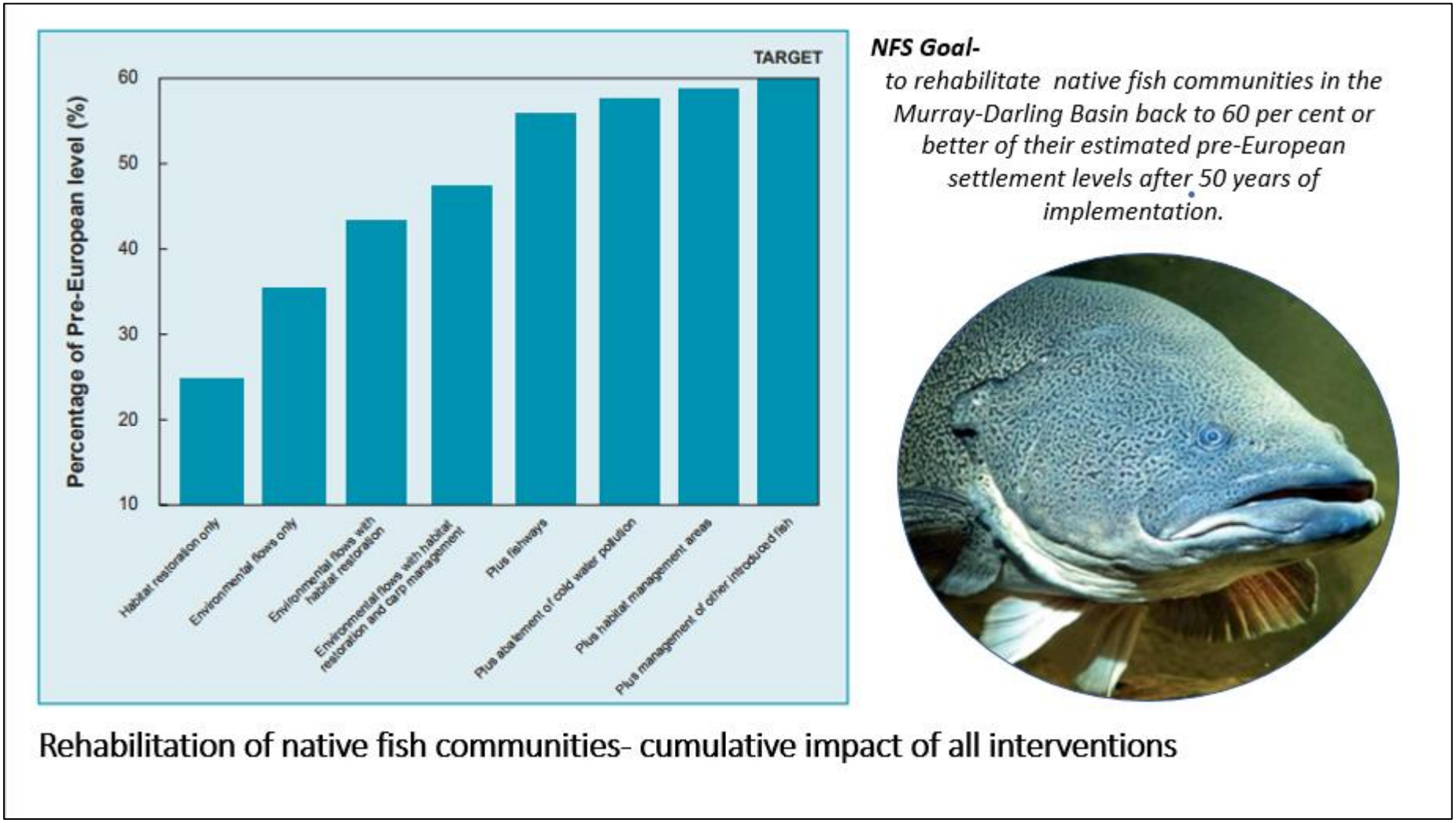

Slide 3: The Demonstration Reach Conceptual Model

-The Native Fish Strategy recognised that restoring fish and rivers needs a holistic and integrated approach across a catchment.

-Actions must occur in concert with each other.

-The demonstration reach provides a working model for how this can be achieved by all partners working together.

-Community engagement is a central theme.




Slide 4: The Native Fish Strategy

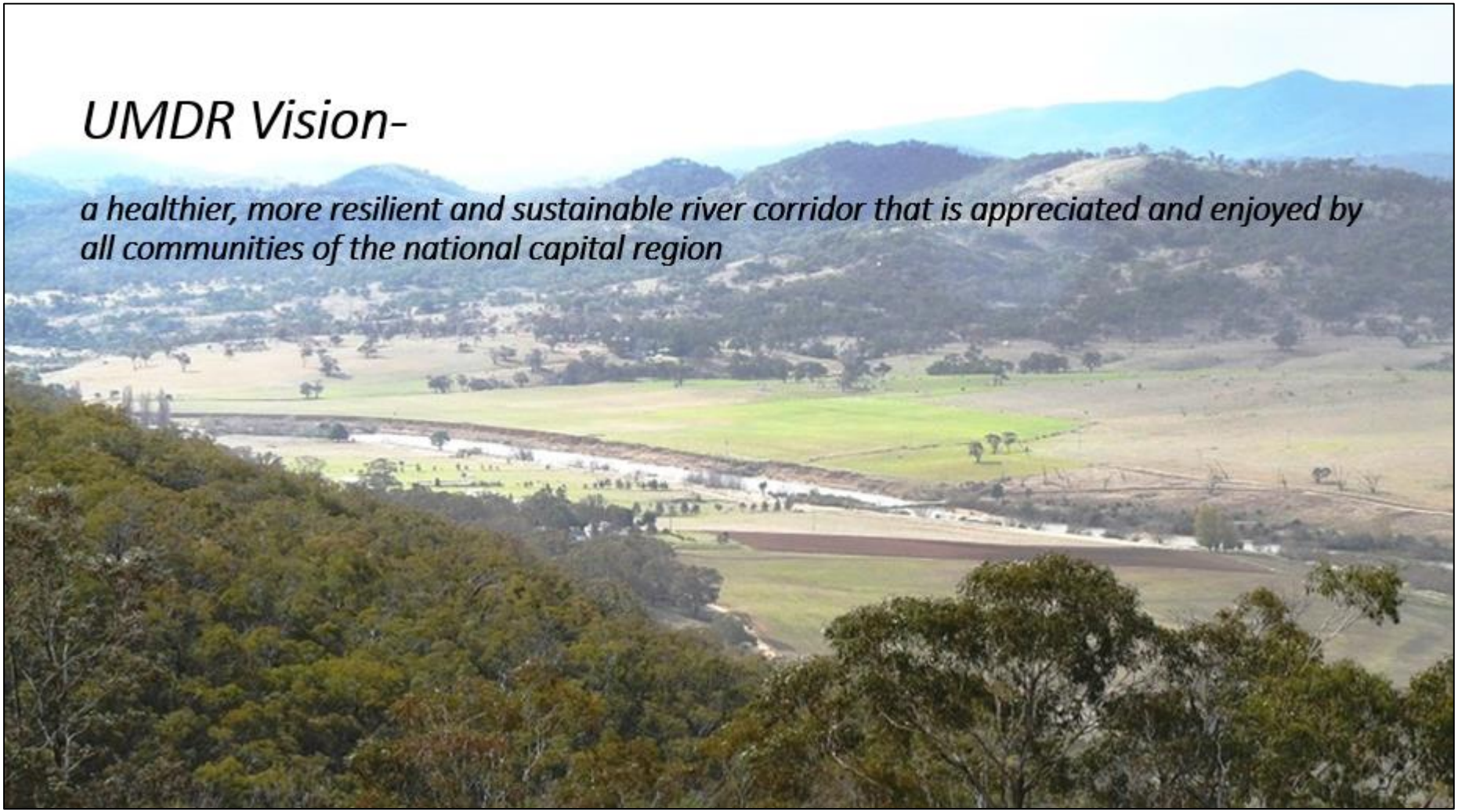
-The strategy is science based and was developed using best available knowledge about fish populations and what would be required to support fish recovery.

-The strategy quantified the cumulative impact of interventions, showing that without integration of all interventions full recovery is not possible.

-Has an aspirational target.

-At the MDBA's Native Fish Forum in August last year, Craig Copeland (the then Head of NSW Fisheries) highlighted that the strategy is just as relevant today as it was when it was written.

-This strategy informs and supports the UMDR's approach, including its guiding principles.




Slide 5: UMDR Vision

-The UMDR vision was penned when the UMDR was set up. It is just as relevant now as it was when it was written.

-It highlights the relationship between a healthy river corridor, the community and thriving fish populations and hence it remains as our UMDR vision into the future.

Slide 6:  The UMDR today

-The UMDR was reinvigorated in 2013 with support from the ACT Government, Bush Heritage Australia and a small amount of funding to pay a part time facilitator provided by the MDBA.

-The reinvigoration of the UMDR highlights that it has remained relevant based on a common interest of our partners to manage the wonderful habitat of the Murrumbidgee and the threatened fish species that occur there.

- The UMDR is an ongoing example of the benefits of cross border collaboration for our region.

Slide 7:  What fish occur in the UMDR?

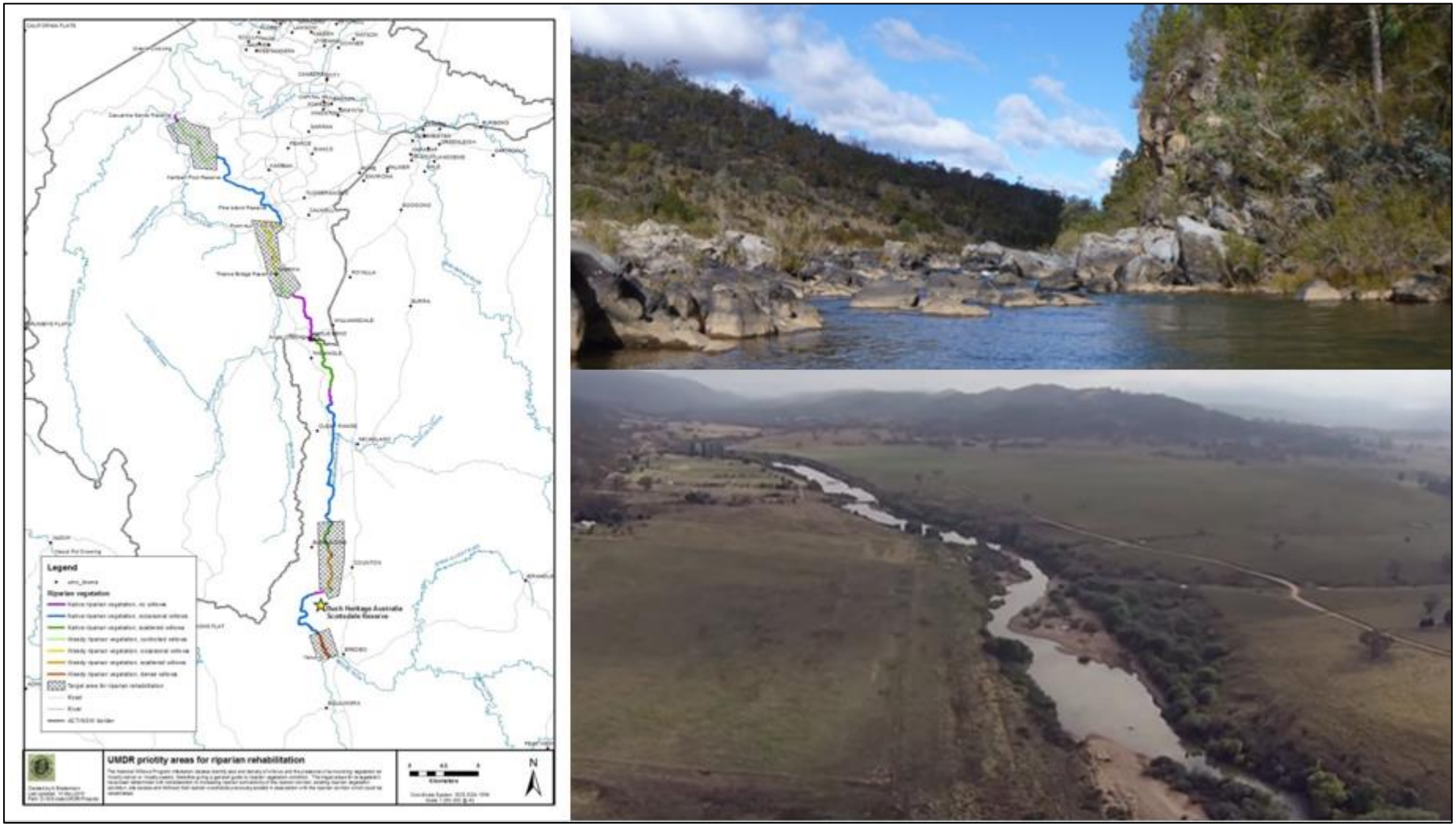
-We have small yet resilient native fish populations in the Upper Murrumbidgee catchment including Trout cod, Murray cod, Macquarie perch, Golden perch and Murray river crayfish.

-Trout cod and Macquarie perch are listed as endangered, and Murray cod is listed as vulnerable under Commonwealth legislation. All species are also listed under state legislation.

-These species are unique to the Murray Darling Basin, having evolved over millions of years.

-Murray cod can grow up to 1.8m and it is estimated that they could live for up to 75 years, this is humbling.

-The things we must do to restore native fish populations has many additional benefits which overlap with the objectives of other groups interested in healthy landscapes in our catchment.  These benefits include biodiversity conservation, improved water quality, increased landscape resilience (including for climate change) and landscape connectivity.

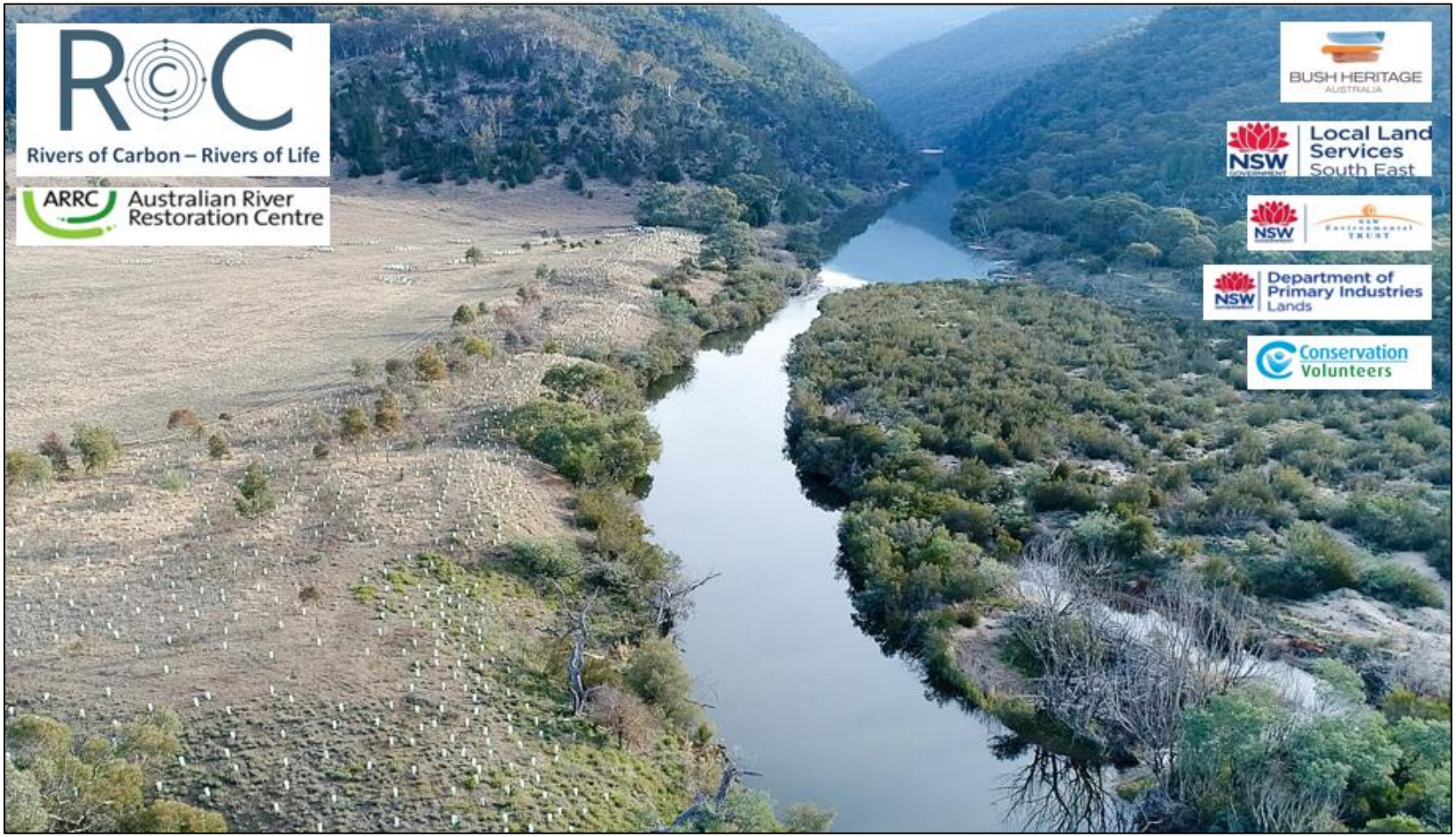



Slide 8: UMDR and fish habitat

-One of the reasons why we have native fish populations remaining in our catchment is the high quality refuge habitat that occurs along the upper Murrumbidgee River (see map). The map shows riparian condition with the blue, purple and green areas showing good condition native vegetation. This correlates with gorge type areas where better instream habitat also occurs.

-These areas are also very scenic and makes the Murrumbidgee River a wonderful asset for our region (see top RHS image).

-The higher quality habitat areas are disconnected by flatter, alluvial areas which have been historically cleared, are degraded and have sand slugs present. This can be seen in the lower RHS image which shows the Bumbalong Valley where we have been working to address these issues in the past years. The Tharwa area is another example. These areas are priorities for riparian restoration and fish passage works and are identified on the map with hatched shading.




Slide 9: Rivers of Carbon Upper Bidgee

-Our work at Bumbalong has been part of the Rivers of Carbon Upper Bidgee project which has seen investment of over $400,000 in last 4 years, under the auspices of the Australian River Restoration Centre.

-We have been able to create direct connectivity to Bredbo gorge working downstream from Scottsdale Reserve, which adjoins the bottom end of the Bredbo gorge (as can be seen in the image).

- We have worked with 28 landholders to control willows, blackberry and restore riparian vegetation via planting 16,000 native plants aiming to re-establish the floodplain ribbon gum woodlands that would have been there previously.

-The UMDR gratefully acknowledges the direct support of our funding partners and landholders that participated in the project.

-Having a land steward such a Bush Heritage Australia at the top of the reach has been a great benefit to build momentum for the project in the community and provides an ongoing focus beyond the life of the funded work.

Slide 10:  Rivers of Carbon Upper Bidgee
-The project included works to address streambank erosion, as well as provide fish habitat.
-The woody debris was recovered from historic clearing of a quarry upstream.


Slide 11: Why Rivers of Carbon?

-The UMDR approached the Australian River Restoration Centre to develop a Rivers of Carbon project in the Upper Bidgee because the RoC program is supported by a successful model that works well.

-The RoC approach and program was developed and is managed by Siwan Lovett and Lori Gould.

-The RoC approach is more than just riparian planting, it is about integrating multiple benefits.

-The RoC approach also focusses on connecting and engaging with local communities to support lasting outcomes.

Slide 12: Willows- a threat to our high quality habitats

-Another issue that is affecting the quality of habitat along the UMDR is the spread of willows. We have several species present which are now hybridising and producing viable seed, increasing rate of infestations.

-In high quality riparian and instream habitats (such as at the Murrumbidgee River near the Michelago creek confluence shown in the slide), willows are the primary threat to instream habitats and riparian condition.

-The UMDR's work is guided by the UMCCC Willow Management Strategy, 2010.

-The strategy identifies the UMDR as a priority area for willow control due to high quality habitat and the fact that the gorge areas act as a buffer to rapid re-infestation from upstream sources.

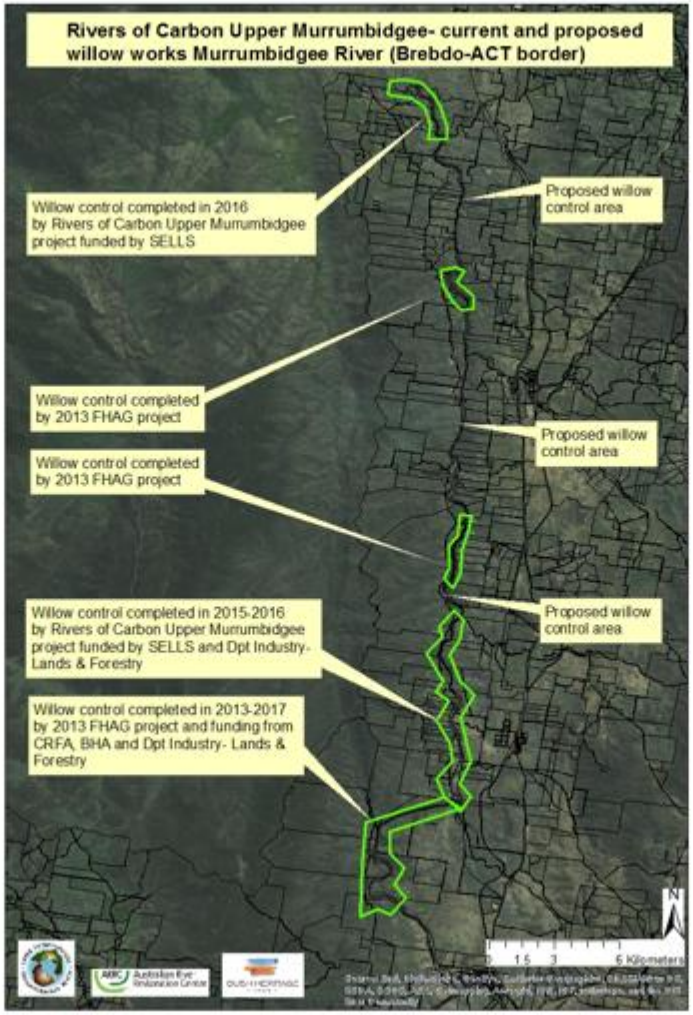
-The UMDR has been focussing on controlling willows in our project area using both contractors and volunteers.

Slide 13:  UMDR adventurous volunteers program

-Our community willow control project successfully engaged adventurous volunteers to help map weeds and control willows (of medium to low infestations) in more inaccesible river sections.

-The project created a high level of community engagement and an appreciation of the Murrumbidgee River.

-Follow up surveys of the work showed that control rates achieved by volunteers were equivalent to that of the contractors we use.




Slide 14: UMDR willow control program

-In addition to the adventurous volunteer program the UMDR has gained funding from a various of sources over the last years to control willows in the NSW section of the UMDR.

-This work has included putting in place a buffer zone upstream of the ACT to reduce ongoing infestation of willows into ACT from upstream sources.

-Our aim is to clear the UMDR free of willows, aiming to protect high quality riparian and instream habitats in the UMDR.

-The UMDR has applied for funding from NSW Fish Habitat Action grants to run another adventurous volunteer program this year, to connect the work we have done so far as shown in the slide.


Slide 15: Where to from here?

-In the past years our work has been directed by project based funding, with the majority of work in NSW.

-Going forward we want to be more strategic!

-Bush Heritage Australia is supporting the UMDR to undertake a conservation planning process. As part of this we have been engaging a core team of partners to review and update our existing UMDR plans.

-The process will develop a 10 year management plan for native fish conservation in the upper Murrumbidgee, linked to monitoring of outputs and outcomes for the UMDR.

-The planning process has allowed us to take a hard look at the role of UMDR and focus for the project going forward.

-The project will work where the needs are, looking at the whole of the Upper Murrumbidgee catchment.

-The planning is highlighting strongly that many issues are interlinked and the actions that are required to address them are of mutual interest to other organisations working in the catchment.

# Our partners

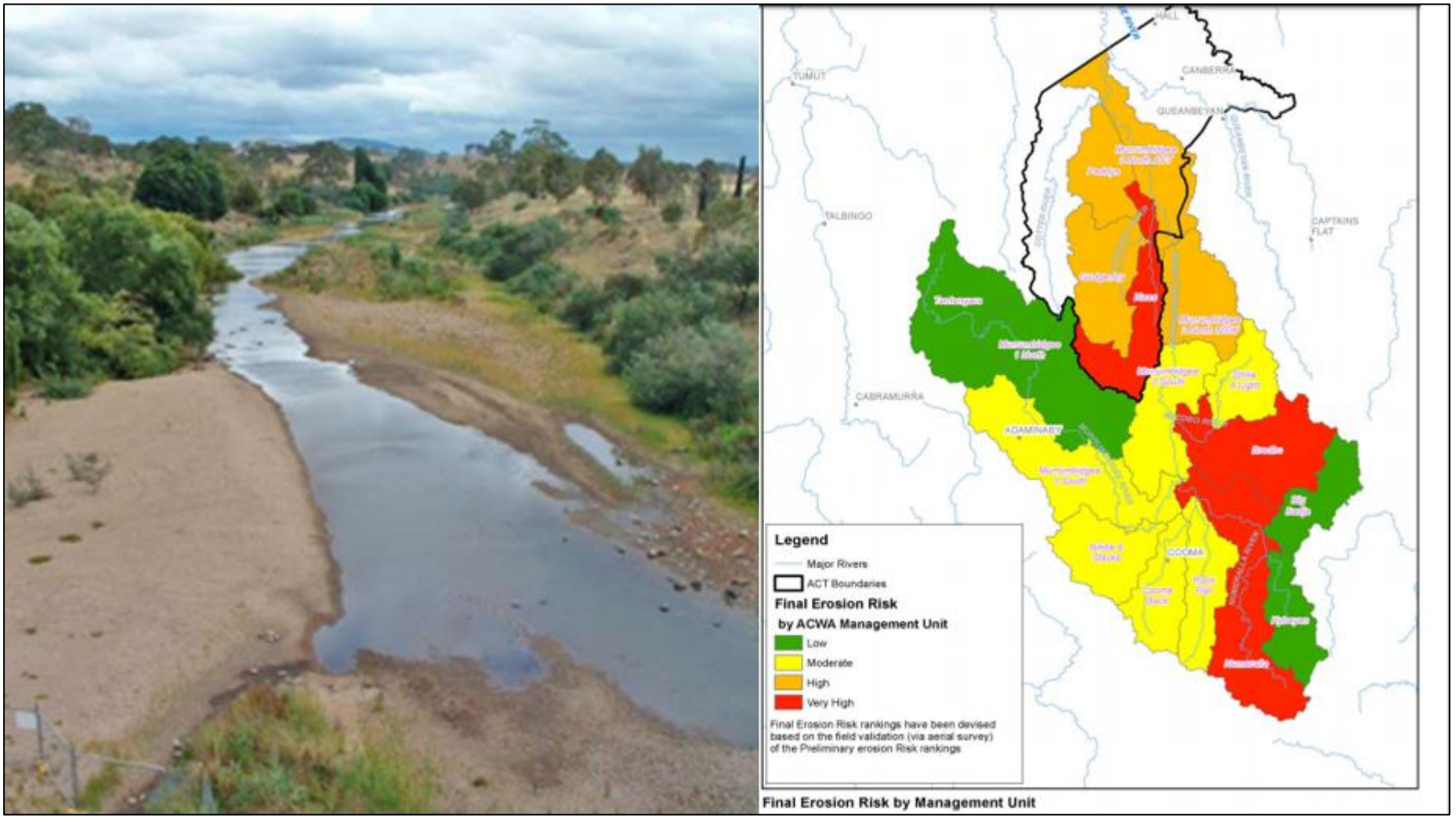
- Bush Heritage Australia
- Australian River Restoration Centre
- ACT Government
- UM Waterwatch
- Murray Darling Basin Authority
- NSW DPI Crown Lands
- South East LLS
- Snowy-Monaro Regional Council
- NSW DPI (Fisheries)
- Icon WATER
- Conservation Volunteers Australia
- Greening Australia
- University of Canberra
- ANU
- Capital Region Fishing Alliance
- NSW Recreational Fishing Trust
- NSW Environmental Trust
- Upper Murrumbidgee Landcare
- SACT Catchment Group
- Local fishing groups
- Invasive Animals CRC
- UMCN
- K2C
- Landholders
- Community members

Slide 16: The UMDR is a partnership program
-The planning is also highlighting strongly that there is so much expertise in our region.
-The way forward for the UMDR is to collaborate- not duplicate- to achieve outcomes which are mutually beneficial.
-The slide shows the partners we have worked with directly over the last years.
-The UMDR is keen to keep developing partnerships.
-We will be aiming to have our Draft UMDR Management Plan ready by mid year and everyone's input and ideas are welcomed.

Slide 17:  UMDR and UMCN have mutual interests

-One area where the UMDR has mutual interests with the UMCN is in mitigating erosion and sediment throughout the catchment.  This has been addressed in detail by the ACWA plan.

-The slide shows a 5m high streambank erosion slump we stabilised as part of our Rivers of Carbon Upper Bidgee project on the Murrumbidgee River at Bumbalong.




Slide 18: Sediment and erosion are a major threat to native fish

-The source areas for gross sediment in the upper Murrumbidgee catchment which is affecting native fish passage are the same priority erosion risk areas identified by the ACWA plan.

-This provides an opportunity to work together with the UMCN and has the potential to other benefits for our catchment linked to biodiversity as well as farm productivity.

-The UMDR submitted a Smart Farms regional partnership grant application in Dec 2017, which included the UMCN as the delivery partner to provide innovative solutions to erosion and groundcover management as part of the larger grant. Funding has not been announced to date, but it is a working example of partnership opportunities.

-The UMDR is keen to explore future partnerships with the UMCN.


More info-
www.riversofcarbon.org.au
www.upperbidgeereach.org.au
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Thankyou