

NATIONAL CARP CONTROL PLAN

THE NATIONAL CARP CONTROL PLAN

PROGRESS REPORT - SEPTEMBER 2019



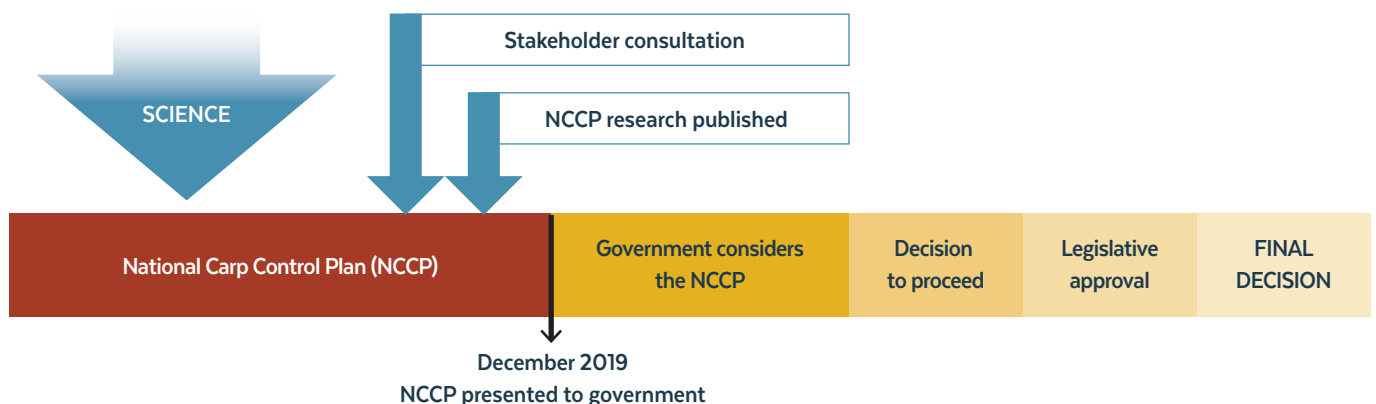
The National Carp Control Plan (NCCP) is entering its final months before being presented to the Australian Government in December 2019. Activities being focused on include:

- wrapping up the research program;
- consolidating research into issues papers for consideration by a variety of stakeholders; and
- development of the plan itself based on the research conclusions.

Developing the National Carp Control Plan

As the bank of 16 research projects are reviewed and finalised, the NCCP team is integrating the results into issues papers, which in turn will be incorporated into the draft plan, to be delivered to the Australian Government.

The plan will also include input from the Scientific Advisory Group (SAG), the Operations Working Group (OWG), regional case study workshops, operational experts and stakeholder engagement.



Stakeholder engagement

The NCCP team has undertaken a broad range of community consultations with stakeholders across regional Australia. The team has spoken to local government, Indigenous community members, commercial carp fishers, recreational fishers, tourism operators, Koi owners, natural resource managers and farmers.

The community will be able to access the NCCP research, which will be published before the NCCP report is completed and submitted to the Australian Government in December 2019, and before any final decision is made by the Government on the release of the virus.

Canberra stakeholder workshop

On 20-21 June in Canberra, 39 stakeholders participated in a workshop to learn more about the research projects that will underpin the NCCP and to voice their concerns and opinions on the NCCP research.

Participants included local business people from carp-affected areas such as fishers and tourism operators, community members, and groups representing irrigation farmers, environmental interests and Indigenous Australians.

An overview of the NCCP research program and results was presented, which included research on carp biomass, epidemiology, water quality, ecological risks, ecological benefits and social impacts. There was also discussion about how to manage a possible virus release. Major points of discussion at the workshop included:

- the importance of an integrated pest species management approach to carp control;
- the ecological risks of a virus release – based on the research many of these risks can be managed, but there will be costs;
- the myriad stressors that currently impact freshwater systems, including carp;
- the likely impact of a virus release on carp populations;
- carp control options involving manual removal, such as fishing;
- transparency around the research done as part of the NCCP; and
- the range of feasibility criteria being used to assess whether the carp virus should be released.

Issues papers

Shortly after the June workshop, the NCCP developed an online platform where stakeholders who have registered to receive NCCP information will be able to access seven issues papers and comment on them. Each paper explores an aspect of the research and explains the findings. Two issues papers have been finalised, with the others in development:

Issues paper 1: Why and how did the National Carp Control Plan originate?

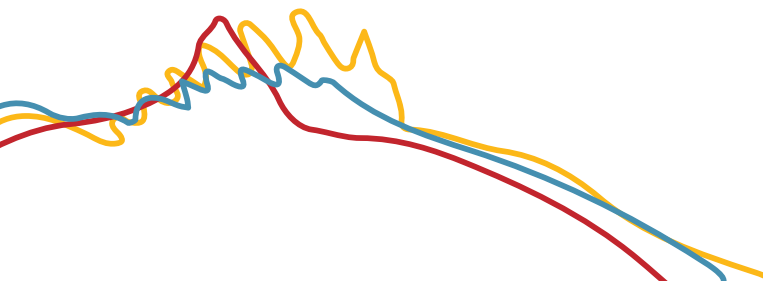
Issues paper one takes a broad look at the history of carp in Australia from its introduction to Australia in the mid-19th century, to its recognition as a pest in the mid-1960s and its current widespread status. Having become established in many waterways, such as the Murray–Darling Basin, it causes significant environmental, social and financial damage. The paper goes on to explain how numerous control methods have been proposed or trialled for carp in Australia since the 1960s, but none have delivered widespread or lasting carp suppression. Within this context, the carp virus emerged as a potential biocontrol agent for carp in Australia after impacting on both farmed and wild carp populations internationally. CSIRO research into the virus provided preliminary indications that the virus kills carp and is species specific to European Carp.

Issues paper 2: How the carp virus could affect carp in Australia

Issues paper two looks at the role of epidemiology and carp biomass in developing a biocontrol strategy. The paper explains how research has demonstrated that most ecosystems can cope with carp numbers below a certain damage threshold. The aim of a carp biocontrol strategy could be to reduce carp populations to below that threshold at which damage occurs. The paper also details modelling work done to understand how the virus may act in carp populations. This is a complex study that is building knowledge of how the carp virus would impact carp and under specific conditions. For example, the carp virus is only likely to cause major outbreaks when water temperatures are within a particular range and when carp are in close contact or aggregating.



National Carp Control Plan coordinator Jamie Allnutt reviewing carp and river-mapping data.



Case studies

NCCP coordinator Jamie Allnutt has been engaging directly with community stakeholders and experts in the Lachlan (NSW) and Mid-Murray (Barmah Forest to Kow Swamp, Victoria) regions. At recent case study workshops in these areas, the latest NCCP research was provided to inform discussion about risks and management of those risks, and how the virus release could be implemented in these regions.

The case study locations represent two different types of catchment systems.

The Lachlan catchment is a smaller system with less carp and more ephemeral waterways. The Lachlan case study workshop showed that the carp virus would be effective in the middle part of the catchment where there is high carp biomass, more permanent water and suitable temperatures for the carp virus.

The Mid Murray case study area contains larger river and wetland systems, with more permanent water, along with the presence of higher carp biomass. This case study highlighted a more complex area for management of all risks associated with possible carp virus release. The cost for management of the carp virus in this area is likely to be higher.

Both case studies highlight the considerable knowledge, expertise and importance of local communities and experts being involved in any planning and management of a possible virus release.

Understanding community attitudes to possible use of the carp virus

At the recent NCCP research workshop, scientists from the University of Canberra reported on the preliminary results of their work assessing community views about the possibility of releasing the carp virus to control carp. The project surveyed more than 10,000 people across Australia at different times over the past few years.

The research shows that the community generally understands the importance of controlling carp. More than 40 per cent of survey respondents support the virus release; less than 20 per cent of respondents oppose the release of the carp virus. The research also showed that more than 50 per cent of people surveyed agree carp are a problem.



Wetlands in the mid-Murray region are known to host high numbers of carp.

Survey respondents qualified their answers by assuming there is:

- good evidence from research that risks to environment and people are low or manageable;
- sufficient funding to do the job well;
- clear governance and responsibility;
- multi-pronged, long-term carp reduction strategy (not focusing solely on virus release, no 'silver bullet');
- investment in recovery action as well as carp reduction; and
- monitoring of outcomes and adaptation.

Water quality was found to be a major concern for the community, especially for the tourism sector.

The same researchers are working on a related project to assess the impacts of a possible carp virus release on a range of stakeholders including commercial fishers, Koi owners, recreational fishers and tourism operators, and how these impacts might be mitigated.

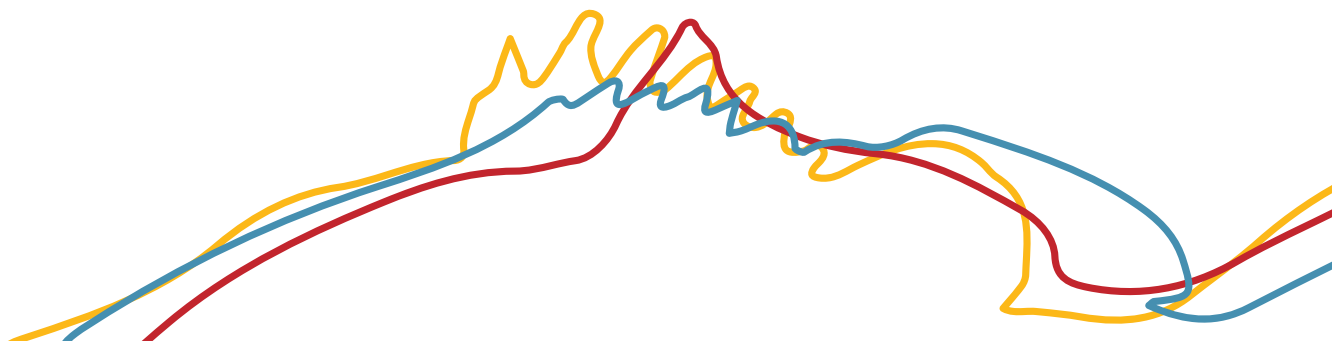




PHOTO: 123RF.COM

Koi biosecurity

Koi have been bred from carp and are therefore susceptible to the carp virus. There are many Koi owners in Australia and they are concerned about impacts of the carp virus on their pets. In response the NCCP has commissioned a recently funded project to develop a Koi biosecurity strategy to help reduce the impacts of a possible carp virus release.

Risk assessment

The NCCP ecological risk assessment project is working to assess the possible risks to ecosystems from a possible virus release. The project considers risks to all types of water bodies including ephemeral wetlands (which sometimes dry out), lakes, reservoirs and rivers, and the native species within them.

The risk assessment was informed by other NCCP research projects including the carp biomass project, water quality assessment and carp virus epidemiology study. It explores the potential impacts of a virus release on water quality, native fish, amphibians, water birds, crustaceans, threatened species, threatened ecological

communities and internationally important wetlands as listed under the Ramsar Convention.

The risks of negative ecological impacts resulting from the virus release have been found to be greater in waterbodies which are ephemeral and shallow with low flow and large carp populations. The assessment also highlighted a range of mitigation or management strategies to reduce or avoid risks, such as various clean-up strategies.

Commercial fishing investigation

Research into the potential of commercial fishing as a means to manage carp populations in Australian waterways has been investigated by a team at La Trobe University in Mildura, Victoria, in collaboration with the New South Wales Department of Primary Industries and Tasmania's Inland Fisheries Service. Using computer models of carp populations typical for a known river catchment, the modelling showed that unless commercial fishing removed substantial carp numbers of all sizes, it is not possible to effectively reduce carp populations.

More than 1400 tonnes of carp would need to be fished from the Lachlan River catchment in the first five years of fishing to make a dent in carp populations, and this volume of fish would overwhelm the existing domestic markets. Australia would need a permanent and much larger commercial carp industry to maintain population control in a lasting way. An up-scaled commercial fishery would need to continuously fish hard in all areas to control carp in Australia.

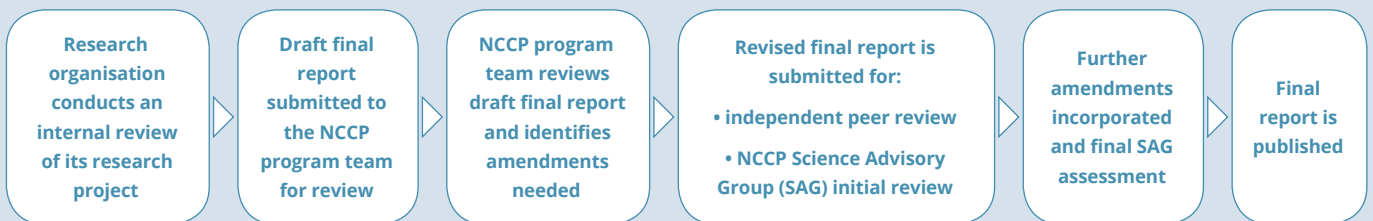
The NCCP research review process

The NCCP undertakes a rigorous and extensive review process prior to completing research projects.

The review process is lengthy, particularly when there are many authors, but the priority is to ensure that all NCCP research has been held up to rigorous scrutiny. The NCCP's Science Advisory

Group (SAG) is central to this review process. The SAG consists of freshwater ecologists, fish biologists, aquatic animal health scientists and water quality scientists.

Following completion of the review process the final reports from all NCCP research projects will become publicly available.



WANT TO FIND OUT MORE ABOUT THE NCCP?

You can get in touch with the National Carp Control Plan team at:
carp@frdc.com.au

News and information on the individual research projects can be found on the NCCP website:



www.carp.gov.au

