QUESTION TIME BRIEF

Portfolio: Water, Energy and Emissions Reduction

Water Quality and Healthy Waterways

Talking Points:

Healthy Waterways Program

- Through Stage 2 of the ACT Healthy Waterways program, the Government continues to invest in new stormwater infrastructure to help improve the quality of stormwater entering Canberra's creeks, lakes, and rivers.
- Two assets have been completed:
  - A set of four bioretention swales at Kambah Playing Fields have been built and are nearly fully accepted for initial handover.
  - A pair of floating wetlands were deployed in Yerrabi Pond in February 2023.
- A project restoring the rural/conservation catchment of the Naas/Gudgenby is well underway.

Healthy Waterways - Higgins Raingarden

- A bioretention swale for Bevan Street Park in Higgins was proposed and received Development Approval in 2022. However, the design later had to be changed on engineering grounds.
- No public consultation was done in relation to this development, outside of the Development Approval process, because of minimal impact of the swale on use of the green space.
- A small raingarden is now proposed, and since this will take up some green space for an exclusive use, a public consultation process is proposed.
- The revised design will be presented to the community and efforts made to gauge acceptance and gain feedback before submitting the revised project for Development Approval.
- A Communications and Engagement Plan will guide consultation, which commenced on 26 April and closes on 7 June. It will include a Community Information Session at Kippax and a presentation to the Belconnen Community Council on 18 May.

Procurement of Monitoring Contract

- The government has commenced a procurement process for a range of services associated with water quality monitoring in the ACT. These include:
  - the performance of recently constructed Healthy Waterways wetlands;
  - water quality in waterways draining various land uses, to support water quality modelling; and
  - streamflows in lake Tuggeranong tributaries.
- The procurement has been evaluated and negotiations with the successful contractor on the final contract will begin shortly.

Cleared as complete and accurate:	24/04/2023	
Cleared for public release by:	Executive Group Manager	Ext: 6207 8628
Contact Officer name:	Ryan Breen	Ext: 6207 8268
Lead Directorate:	Environment, Planning and Sustainable Development	

QUESTION TIME BRIEF

Healthy Waterways – Future Developments

- Six wetland and other water quality infrastructure projects should be completed by the end of the year:
    - Naturalisation of drains entering Tuggeranong Creek at Isabella Plains which will both clean water and allow it to infiltrate into the groundwater. Significant progress was made in gaining Development Approvals and Design Acceptance and construction will start in June.
    - Naturalisation of drains entering Tuggeranong Creek at Calwell (South of Johnson Drive).
    - Reconnection of old creek line at Richardson (Tuggeranong Homestead).
    - Water re-use from water quality pond in Kambah (Kett Street)
    - 2 small pocket bioretention basins within Fadden which will provide a useful proof of concept for at-source treatment of stormwater.
    - 38 drain outlets linking small drains to adjacent green space, to help naturalise urban catchments in Kambah.
- A seventh project involving Wetlands at Belconnen Oval and will explore the benefits of subsurface (gravel bed) wetland elements.
- Public consultations in relation the project, resulted in a significant delay to approvals but means that it now has strong support from the Belconnen community.

Key Information

Water Quality

- Water quality is dependent on the condition of the catchments and levels of nutrient or other pollutants in those catchments.
- The Healthy Waterways Program and water governance reforms are key elements of the Government's strategy to improve the health of our lakes and waterways.
- $14 million was committed by the ACT Government in April 2022 to expand the Healthy Waterways initiative. This investment will deliver catchment planning and the construction of new water quality assets to target the sources of pollution entering our lakes and ponds.

Blue-Green Algal Blooms

- Blue-green algal blooms in the ACT's lakes and waterways remain a considerable challenge. In some instances, these bloom have required to closure of Lake Tuggeranong and Lake Ginninderra to primary contact activities.
- The Government continues to invest in the ACT Healthy Waterways program to address these problems. However, the government cannot solve these problems on its own which require whole of community action.

Cleared as complete and accurate:	24/04/2023	
Cleared for public release by:	Executive Group Manager	Ext: 6207 8628
Contact Officer name:	Ryan Breen	Ext: 6207 8268
Lead Directorate:	Environment, Planning and Sustainable Development	

- The ACT Healthy Waterways program is creating catchment plans to address problems like lake closures due to blue-green algae or faecal coliforms.
- The first catchment plan will be for Lake Tuggeranong. A draft of this plan is expected by the end of the year, with the remaining plans being delivered in 2024 and early 2025.

Murrumbidgee River (bacterial contamination)

- The bacterial loads within the Murrumbidgee River are symptomatic of land and water management activities upstream of the ACT.
- The poor health of the Murrumbidgee River is a testament to the importance of cross-border collaboration on water management activities and the broader Murray-Darling Basin water reforms.
- The ACT Government remains engaged with the NSW and Australian governments to highlight the risk to human health and water security from upstream water and land management and identify solutions.

Lake and Waterways Closures

- As of 6 April 2023, sites **closed** for swimming (primary contact recreation) include:
    - Lake Ginninderra – Bargang Beach – bacteria alert)
    - Lake Tuggeranong – all recreation areas (blue-green algae – extreme alert level)
    - Paddy's River – Murray Corner (bacteria alert)
- Lake and river closure information can change rapidly. For up-to-date information on all waterways, we have an online reporting tool: https://www.cityservices.act.gov.au/news/water_quality_in_our_lakes_and_ponds
- The Environmental Protection Authority monitors lake water quality for blue-green algae.
- For information on Lake Burley Griffin, visit The Swim Guide website.

Background

Research

- Research is continuing on several fronts:
    - The University of Canberra is investigating the sources of nutrient pollution across urban areas of the Lake Tuggeranong catchment.
    - NCEconomics and an ANU researcher are investigating social and economic values of Canberra urban lakes and the impacts of blue-green algal blooms.
    - Smaller investigations are being conducted into:
        - Evaluating the effectiveness of the Leaf Collective
        - The source of faecal contamination in ACT waterways

Cleared as complete and accurate:	24/04/2023	
Cleared for public release by:	Executive Group Manager	Ext: 6207 8628
Contact Officer name:	Ryan Breen	Ext: 6207 8268
Lead Directorate:	Environment, Planning and Sustainable Development	

- How to design constructed wetlands as good habitat for re-introduction of the Green and Gold Bell Frog.
- Good practices in stormwater maintenance.
- The applicability of landcare guidelines for water sensitive drainage lines, developed for Melbourne, to Canberra's urban environments.
- Upgrading the ACT's water sensitive urban design technical standards.
- Quantifying subcatchment inflows to Lake Tuggeranong

- Healthy Waterways is supporting the Nature in the City grant program as a way to create more water sensitive green space.

History

- Stage 1 of ACT Healthy Waterways began in 2014 as a $94 million joint initiative of the Australian and ACT Governments. It was completed in June 2021. Stage 1:
    - Designed and built 19 large water quality assets—raingardens, ponds, wetlands, and channel restorations—according to water sensitive urban design principles.
    - Carried out a major riparian restoration.
    - Conducted a public education/behavioral change program, known as *H2OK: Keeping our Waterways Healthy.*
    - Performed research into pollution, blue-green algal blooms, and control methods.
- The ACT Government invested a further $1 million to build a floating wetland in Lake Tuggeranong, to begin planning for the next stage of works, and to extend the research program.
- Since February 2021, a total of $20 million has been invested in 3 tranches of the Parliamentary and Governing Agreement commitment to *Expand Healthy Waterways: $30 million over 4 years*.

Bacteria (intestinal Enterocci):

- Bacteria (Enterococci) are indicators of fecal material in the water and the possible presence of disease-causing bacteria, viruses and protozoa.
- Bacteria levels are known to become elevated after rainfall due to run-off from stormwater pipes, grazing land and upstream water bodies.
- The ACT Health Protection Service conducts weekly water testing for bacteria from September to April each year. Tests are performed weekly due to the increased likelihood of primary contact activities during warmer weather.
- City Services may display the 'Area Closed to Primary Contact' sign as a precaution if there has been significant rainfall since water samples were taken. However, bacteria levels may be high after rainfall even if the 'Area Closed to Primary Contact' sign is not displayed.

QUESTION TIME BRIEF

Portfolio: Water, Energy and Emissions Reduction

Murray Darling Basin (MBD) Water Reforms within the ACT

Talking points:

- The Murray-Darling Basin water reforms provide the appropriate scale of management, across State and Territory borders, to respond to our climate emergency and safeguard the long-term security of our water resources.
- The Australian Government is providing approximately $2.6 million to support the implementation of Murray-Darling Basin water reforms within the ACT during 2021-2024.
- The ACT is working with the Australian Government to finalise its water recovery commitment by June 2024.

ACT's water recovery commitment (4.9 GL Shared Reduction Amount):

- The ACT water recovery target was met in 2014 through a purchase made by the Australian Government of water entitlement held by ACTEW. The purchase occurred in the regulated Murrumbidgee water management area where it could have most utility for the Commonwealth Environmental Water Holder.
- The Australian Government subsequently received internal advice that deemed the water recovery as ineligible under the Basin Plan.

ACT's position within the MDB Ministerial Council meeting (Feb. 2023)

- Ministers reaffirmed their determination to deliver the Basin Plan in full and discussed options to progress delivery.
- At the meeting we continued to express our support for delivering the environmental outcomes of the Basin Plan and to progress First Nations access to water entitlements.
- Other Basin governments requested an extension of time to deliver their commitments. This will be the subject to discussion at the next Council meeting in mid-2023.
    - The ACT is not seeking to extend the timeframe to meet our water recovery commitment.

Key Information

- Priorities for water management reform within the ACT over the 2021-24 period include:
    - contemporising water governance arrangements to support integrated policy and program delivery
    - advancing the water interests of Ngunnawal Traditional Custodians
    - renewing the ACT's policy for 'Non-urban water metering' to ensure that the metering standards promote sustainable water use.

Cleared as complete and accurate:	12/04/2023	
Cleared for public release by:	Executive Group Manager	Ext: 620 78628
Contact Officer name:	Ryan Breen	Ext: 620 78268
Lead Directorate:	Environment, Planning and Sustainable Development	

- climate vulnerability and water security planning to build resilience in the environment and community of the ACT and surrounding region
- facilitating improved community engagement on the Basin Plan implementation and review within the upper Murrumbidgee region
- delivering water for the environment by returning at least 4.9 gigalitres to the basin through a suite of water efficiency measures.

Background Information

- The Basin Plan was established in 2012 under the *Water Act 2007* (Cwlth).
- Programs developed to implement the Basin Plan are scheduled to conclude by 2024. This includes measures under the Sustainable Diversion Limit Adjustment Mechanism.
- The Murray-Darling Basin Authority is required to conduct an evaluation of the Basin Plan implementation by 2024 and a review of the Basin Plan by 2026.

<u>ACT Shared Reduction Amount</u>

- The Basin Plan commits the ACT to 4.9 GL of water recovery for achieving shared environmental outcomes within the southern connected basin.
- In October 2014, the Australian Government confirmed the purchase settlement of 9.383 GL General Security Murrumbidgee water entitlement from ACTEW.
- In May 2017 the Australian Government raised concerns on how to legally recognise the ACT's shared reduction amount (4.9 GL) from its sustainable diversion limit with water purchased in the regulated Murrumbidgee resource area (in NSW downstream of Burrinjuck Dam). At this time the Murray-Darling Basin Authority indicated that this could be resolved through a Basin Plan amendment.
- In Feb 2019, the Australian Government advised that the water purchase within the regulated Murrumbidgee could not contribute to the ACT's water recovery commitment, and that water recovery would be required from within the ACT water resource area.
- Legal advice from the ACT Government Solicitor (2019) supported the Australian Government's position that the ACT's shared reduction amount must be sourced from within the ACT water resource area.

QUESTION TIME BRIEF

Portfolio: Water, Energy and Emissions Reduction

2022 Catchment Health Indicator Program (CHIP) Report

Talking Points

- A key part of the Waterwatch program is the annual Catchment Health Indicator Program report – known affectionately to most at the CHIP report. This provides a "catchment health score" of river reaches in the Upper Murrumbidgee, displayed in individual report cards, using data collected by Waterwatch volunteers.
- The purpose of the CHIP report is to give the community a better understanding of water quality and waterway health issues in the catchment as well as providing a baseline assessment of catchment health to assist natural resource managers and policy-makers.
- The 2022 CHIP report was released on World Water Day, 22 March 2023. The results are as follows:
    - 97 report cards on various river and wetland reaches across the ACT region;
    - 1,992 water quality surveys, 192 waterbug surveys and 232 riverbank condition assessments; and
    - All collected at 237 sites by over 200 Waterwatch volunteers.
- The results show that:
    - 8 report cards received an Excellent (A);
    - 44 got a Good (B) result;
    - 44 scored a Fair (C); and
    - 1 received a Poor (D) result.
- Overall, 54% of reaches fell into the excellent/good range which is the best result in the CHIP's nine year history, breaking the previous record set in 2021.
- 2021 saw a marked improvement in catchment condition compared to the dramatic impacts of the fires and drought in the preceding years. While overall condition improved again in 2022, it was less pronounced and not as uniformly felt across all waterways.
- As rain fell on an already saturated landscape, high flows became commonplace in our rivers throughout the year. This left certain urban and rural waterways vulnerable to erosion and scouring due to a lack of native vegetation both in the streams and long the riverbanks
- Planting a diversity of native vegetation both in and along our waterways will help make our catchments more resilient to extreme weather conditions.
- I thank the Waterwatch volunteers for their valuable contribution.

Cleared as complete and accurate:	24/04/2023	
Cleared for public release by:	Executive Group Manager	Ext: 620 78628
Contact Officer name:	Woo O'Reilly	Ext: 620 72246
Lead Directorate:	Environment, Planning and Sustainable Development	

QUESTION TIME BRIEF

Background Information

- Upper Murrumbidgee Waterwatch supports the community in the monitoring and caring of our local waterways. The program has been running for over 25 years and has sites right at the top of the Murrumbidgee River in Kosciusko National Park, all the way down to Taemas Bridge where the Murrumbidgee enters Burrinjuck Dam near Yass.
- Two primary functions of the Waterwatch program are to facilitate community engagement through the monitoring and care of local waterways, and to use the data (water quality, waterbugs and riverbank condition assessments) as an early warning system for aquatic ecosystem health issues.
- There are now over 30,000 Waterwatch water quality surveys on the Atlas of Living Australia database dating back to 1995.
- Waterwatch works in partnership with the three community catchment groups (Molonglo, Southern ACT and Ginninderra) to implement the Waterwatch program. The ACT Government has provided funding through to June 2023 for the coordinator positions which are essential for training and supporting the volunteers.
- An additional coordinator is funded through Icon Water to support volunteers to monitor waterways in the Cooma Monaro region, upstream of the ACT. This allows Waterwatch to work with regional partners and collect water quality data on a truly catchment scale.

Cleared as complete and accurate:	24/04/2023	
Cleared for public release by:	Executive Group Manager	Ext: 620 78628
Contact Officer name:	Woo O'Reilly	Ext: 620 72246
Lead Directorate:	Environment, Planning and Sustainable Development	

QUESTION TIME BRIEF

Portfolio: Water, Energy and Emissions Reduction

Establishing the Office Of Water

Talking points:

- The Office of Water has been established to provide a holistic and coordinated approach to water policy, planning and program delivery.
- Activities to strengthen water governance arrangements continue and include:
    - Recruitment continues towards a target staffing profile of 16 (currently 14 staff employed). This excludes 7 staff employed under the Healthy Waterways program.
    - The water resource policy and planning responsibilities have been delegated from the Environmental Protection Authority (EPA) to the new Office under a Notifiable Instrument (NI2022-607).
    - A new Cross-Directorate Advisory Committee is in the process of being formed to strengthen coordination of water management responsibilities across agencies. The first meeting of this Committee will be convened by mid-2023.
    - The Office of Water is working with the Ngunnawal Traditional Custodians to develop a strategy to advance their interests in water management and ownership. This is supported by a new program of aboriginal waterway assessments that commenced in mid-2022.
    - Project work is underway to support water security planning, refresh of the ACT Water Strategy and scoping the Water Information Hub. These are exciting new initiatives that the Canberra community will have the opportunity to engage on throughout 2023.

Key Information

- The 2022-23 Budget commits to $1.58 million of additional funding across the next two years to establish the Office, implement reforms to strengthen management arrangements and deliver new initiatives.
- The Office of Water will develop new initiatives that aim to:
    - improve public access to water information
    - advance the water interests of the Ngunnawal community
    - provide a long-term plan for securing Canberra's water supply.
- The Office of Water has been formed within the Environment, Planning and Sustainable Development Directorate (EPSDD), Environment, Heritage and Water Division.
- Amendments to the *Water Resources Act 2007* (ACT) have been introduced to the Assembly. The amendments aim to clarify roles and responsibilities for water policy and planning.

Cleared as complete and accurate:	12/04/2023	
Cleared for public release by:	Executive Group Manager	Ext: 620 78628
Contact Officer name:	Ryan Breen	Ext: 620 78268
Lead Directorate:	Environment, Planning and Sustainable Development	

QUESTION TIME BRIEF

Background Information

- The Parliamentary and Governing Agreement for the 10th Australian Capital Territory Legislative Assembly includes the commitment to *consider the best administrative arrangements to manage new water programs and provide a holistic and coordinated approach to water programs and policy*.
- Establishing the Office of Water was informed following a review of current governance arrangements conducted by the Environment, Planning and Sustainable Development Directorate under the Governance Review Project.
- The core aim of the Office of Water is to help the sector better:
    - clarify (or reset) the vision, objectives and goals for the sector;
    - tackle discrete and more immediate issues and governance reforms such as roles, responsibilities and accountabilities;
    - coordinate on cross-cutting issues, foster collaboration and help reach decisions that reflect a more coordinated, integrated approach;
    - investigate and resolve deeper issues of governance and structure; and
    - communicate with the public on ACT water resource management issues.
- The Office has responsibility to:
    - lead policy and planning for the ACT water sector, including regulatory setting (e.g. setting environmental authorisations for water quality issues);
    - implement the full package of governance reforms in consultation with relevant agencies;
    - undertake monitoring and reporting to government on the implementation of governance reform priorities, water plans, policies and strategies;
    - provide the primary point of engagement with the ACT community on water sector issues; and
    - undertake assurance reviews in line with an annual assurance work program agreed by the Minister for Water.

Cleared as complete and accurate:	12/04/2023	
Cleared for public release by:	Executive Group Manager	Ext: 620 78628
Contact Officer name:	Ryan Breen	Ext: 620 78268
Lead Directorate:	Environment, Planning and Sustainable Development	

QUESTION TIME BRIEF

Portfolio: Water, Energy and Emissions Reduction

Non-Potable Water Pricing Review

Talking points:

- Current water pricing policy gives golf clubs a 50% discount through the Market Equity Scheme on the non-potable Water Abstraction Charge.
- The government consulted ACT Golf Clubs in October/November 2022 in response to the Non-Potable Water Pricing Review. This gave clubs the opportunity to provide feedback about individual irrigation requirements and water security, current pricing policy and potential policy options in response to the Non-potable Water Review.
- Preparations are underway to formally consult stakeholders about policy options, to seek feedback and finalise a government response to the Review in 2023.
- The government acknowledges that the timeframe to reach a final position to respond to the Non-potable Water Review has been protracted and that golf clubs are seeking price certainty for forward planning.
- I recognise that water pricing is a complex issue and the circumstances of each licensee are unique. Many potential policy options have been assessed to try to achieve a balanced outcome that is fair and equitable for all licensees, not just golf clubs.
- Additional feedback will be sought from broader consultation with licensees and stakeholders, to finalise a government Response to the Review in 2023.

<u>Belconnen Golf Club (formerly Magpies Golf Club):</u>

- The Burns Club have acquired the Belconnen Golf Club, formerly known as the Belconnen Magpies Golf Club.
- Senior officials from the Office of Water and the Burns Club met in March 2023 to discuss current non-potable water pricing arrangements.
- The situation with Belconnen Golf Club is unique. The Belconnen Golf Club is established in an area that has limited access to cheaper sources of water. The club is reliant on treated wastewater that includes costs for treatment and pumping.
- Treated water provided to Belconnen Golf Club by Icon Water is under a confidential and commercial contract. The government has no influence in relation to this contract but notes the ICRC has reviewed the price of water supplied under this contract.
- Costs for the operation of clubs need to be shared across those in its membership that directly benefit from the service. Passing on operating costs through increased membership fees is a business decision of sporting clubs.

Key Information

- The Review and any proposed changes to water pricing is restricted to non-potable water use only and will not affect potable water charges.

Cleared as complete and accurate:	24/04/2023	
Cleared for public release by:	Executive Group Manager	Ext: 6207 8628
Contact Officer name:	Tom Nilsen	Ext: 6205 4644
Lead Directorate:	Environment, Planning and Sustainable Development	

- Proposed policy is intended to support a nuanced approach to the application of charges for water consumption that seeks to balance the trade-off between affordability and promoting water conservation.
- The Review recommends the financial support for clubs under exceptional circumstances. The nature of this financial assistance is being considered as part of a package of policy measures.

Background Information

Non-potable Water Review

- The ACT Government committed through the Parliamentary and Governing Agreement to ensure that clubs continue to support the community while reducing harm from gaming.
- A review into water costs for high-intensity club users of non-potable water commenced on 1 March 2021 by ACT Treasury. The aim of the review was to consider the impact of water costs on the operation of clubs while not requiring cross-subsidisation by other ACT water users.
- The Review was finalised and published on the *Your Say* website in December 2021.
- The scope of the review was limited to non-potable water only. This includes water sourced from rivers, dams and groundwater sources, recycled water from sewage treatment plants and stormwater from the Inner North Reticulation Network. Treated drinking water (potable water) was not part of the Review.

National water reforms

- Micro economic reforms related to water pricing have been agreed by successive governments under the National Competition Policy, National Water Initiative (NWI, 2004), Water Act Cth (2007) and the Murray-Darling Basin Plan (2012).
- The ACT is a signatory to inter-governmental agreements that give effect to these water reforms. Specifically, the ACT has agreed to implement water pricing and institutional arrangements that promote economically efficient and sustainable use of water resources, water infrastructure assets, and government resources devoted to the management of water.
- The NWI pricing principles promotes user-pays and pricing transparency, in respect of water supply systems and cost recovery for water planning and management.

ACT Water Strategy 2014-44 Striking the Balance

- The ACT Water Strategy aims to achieve ‘an integrated and efficient water supply system that provides for the optimal mix of supply options, encourages efficient use of water, is resilient to climate variability, and secures the social, economic and environmental needs of the ACT community’.

QUESTION TIME BRIEF

Portfolio: Environment; Water, Energy and Emissions Reduction

Portfolio: Environment

Fisheries Conservation and Management

Talking Points

- Canberra has a thriving recreational fishing community. One in five Canberrans engage in recreational fishing, which is known to have significant positive health and wellbeing outcomes.
- To reduce fishing pressure on the natural environment, the ACT Government provides a local recreational fisheries resource and which also adds a biodiversity benefit to the urban lakes. Fish are stocked into several Canberra lakes and ponds to the value of $25,000 annually.
- Pest fish are present in almost all urban ponds, often through illegal transfer by the public. Species introduced include Carp, Gambusia, Redfin Perch, and Goldfish.
- Carp present a significant problem in the ACT, being the most common and highest biomass fish. Carp cause reduced water quality, compete with native fish for habitat and resources, and have recently been detected in Googong water supply reservoir.
- A biocontrol agent, Carp Herpes Virus, has the potential to reduce (but not eradicate) Carp populations. Research by the Australian Government is ongoing (with input from ACT ecologists), and a decision at a national level has not yet been made about whether to pursue release of the virus.
- Physical control of Carp by direct removal is not considered viable as a general control method as they are prolific breeders, are very widespread, and there is a high likelihood of illegal re-introduction by members of the public.
- Biosecurity control measures are in place to combat spread of the Epizootic Haematopoietic Necrosis Virus (EHNV), which is lethal to many species of fish.
- The pest fish, Redfin Perch, is a known carrier of the disease. Biosecurity control measures are in place for the sensitive Cotter River catchment, where endangered and EHNV-sensitive Macquarie Perch live, to reduce the likelihood of the disease or Redfin Perch entering the river.
- The ACT Government is working with the Buddhist community to increase understanding about how to perform “life releases” of fish into waterways ethically and in a way that avoids risk to the environment from introduction of pest fish or disease, and prevents death to the animals released. A life-release event with the Buddhist community was held on 4 April 2023.

Key Information

- The *ACT Fisheries Act 2000* provides for the maintenance of fish stocks for recreational fishing, the protection of native species, and the activity of ethical

angling, in addition to regulating fish trade and the keeping of fish. It covers aquatic invertebrates (such as crayfish), as well as fish.

- Eight out of 13 native aquatic species in the ACT are listed as protected or threatened at territory or national level.
- Major threats to these species include water extraction and flow modification, barriers to movement (e.g. roads, dams), poor water quality, pest species and disease, over-fishing, loss/modification of habitat, and climate change.
- Fish habitat is severely compromised in some natural waterbodies. For example, the Murrumbidgee River adjacent to Tharwa is affected by large amounts of deposited sand sourced primarily from historic catchment damage. Engineered structures have already been trialled in this section of river and found to be highly effective in improving habitat and consequently native species composition.
- Connectivity for aquatic animals is frequently disrupted by road crossings and large infrastructure (e.g. dams). Barriers that are a problem to aquatic animals have been mapped and assessed for priority of needing intervention by ACT Government aquatic ecologists.
- Fish stocking in the ACT is guided by the ACT Fish Stocking Plan, currently being updated for the period 2022 to 2027. A community consultation listening report is available on the ACT Government website. A separate Ngunnawal consultation process is also taking place.
- Release of the the Carp Herpes Virus raises certain risks. If the virus is released and causes significant fish death there will be a major impact to the amenity of Canberra urban lakes and an associated clean-up cost, and possible water quality impacts.

Background Information

- Conservation Research branch aquatic ecologists monitor the condition of threatened species in the ACT, stock and monitor the urban lakes, and carry out or advise on policy and management actions. Action Plans for threatened fish species are due to be reported on in 2023.
- The issue of illegal fishing activities observed by anglers is frequently raised on social media. Enforcement actions are investigated by the Parks and Conservation Service Licencing and Compliance section and Parks and Conservation Service rangers if in a rural area. There are no dedicated fisheries enforcement officers in the ACT Government.
- Fish kills rarely, but do occasionally occur in the ACT due to e.g. poor water quality, weather and disease outbreaks. In the event of a fish kill, an investigation will take place between Environment Division aquatic ecologists and the ACT Environment Protection Authority to determine cause and management, followed by clean-up usually managed by the land manager.

- Canberra is a known hotspot for EHNV. This disease primarily affects the introduced pest fish Redfin Perch and is also known to affect native species such as threatened Macquarie Perch. The disease is notifiable at the international level.
- The ACT Buddhist community are sometimes involved in a practice known as “life release” where animals are released from captivity, servitude, or death into the wild. If this practice is done inappropriately it can result in the release of new pests, diseases or the death of the animals being released.

QUESTION TIME BRIEF

Portfolio: Water, Energy and Emissions Reduction

Water Efficiency Projects - MBD Plan

Talking points:

- The Murray-Darling Basin Plan is a complex instrument made even more complex by the policy and legislated conditions placed on its program funding; that is the Water for the Environment Special Account.
- The focus for the previous Australian Government has been on efficiency measures delivered by the irrigation, industry and mining sectors.
- The Australian Government has recently announced a policy shift in its appetite for a broader suite of activities to achieve the water recovery targets, that better aligns with our project design.
- ACT and Australian Government officials are in discussion on the best approach to deliver water to the environment through a program of work that also supports our long-term water security.
- We will be finalising our water recovery commitment before legislated deadline of June 2024. This will require agreement on the funding arrangements and scope of water efficiency measures within the 2023 calendar year.

Key Information

- The ACT urban water efficiency project (business case) proposes to deliver water savings through:
    - irrigation infrastructure upgrades for parks and sporting ovals
    - further integration of water sensitive urban design into urban developments to reduce water mains use, e.g. increased rainwater harvesting, appliances with higher water efficiency rating, and
    - water demand management, e.g. education program, residential and industrial retrofits.
- The business case also refers to waterway improvement activities similar to the current Healthy Waterways program.
- The above-mentioned projects were assessed on their potable water savings capacity, cost effectiveness and implementation risk.

Cleared as complete and accurate:	12/04/2023	
Cleared for public release by:	Executive Group Manager	Ext: 8628
Contact Officer name:	Ryan Breen	Ext: 8268
Lead Directorate:	Environment, Planning and Sustainable Development	

QUESTION TIME BRIEF

Background Information

- At the Murray–Darling Basin Ministerial Council (MinCo) meeting of 8 June 2018, the ACT Government agreed to investigate options to deliver a proposed urban water initiative integrating water security and waterway improvement activities in the ACT.
- The investigations were funded by the Australian Government to address the ACT's water recovery commitment (4.9 GL shared reduction amount) but with the potential to deliver up to 15 GL of water for the environment.
- The funding guidelines for the Off-farm Water efficiency Program were announced by the Australian Government in 2021. The guidelines were designed for participants from the irrigation, industry and mining sectors. The ACT required bespoke arrangements to deliver urban efficiency projects.
- The Environment, Planning and Sustainable Development Directorate met with the Department representatives from the Australian Government on 2 March 2023 to discuss the ACT's Business Case for urban water efficiency measures. The Department presented an alternative funding approach within the context of the Australian Government's Water Recovery Strategy; released in February 2023. This approach provides a simplified funding model that will still support urban water efficiency measures. Separate briefing will be provided on this matter.

Cleared as complete and accurate:	12/04/2023	
Cleared for public release by:	Executive Group Manager	Ext: 8628
Contact Officer name:	Ryan Breen	Ext: 8268
Lead Directorate:	Environment, Planning and Sustainable Development	

QUESTION TIME BRIEF

Portfolio: Water, Energy and Emissions Reduction

ACT Water Metering Policy

Talking points:

- The Office of Water is working in partnership with the Environment Protection Authority (EPA) to update the Non-urban Water Metering Policy.
- Consultation with licence holders on the policy is currently underway and ends 22 May 2023.
- The updated policy ensures continued alignment of the ACT with best practice regulation, the Australian Standard for non-urban water metering.
- The accurate and timely measurement and report of water underpins effective resource management and provides public assurance that water is being managed sustainably.

Key Information

- The policy does not apply to individual water meters that measure potable drinking water supplied by Icon Water.
- The policy will affect approximately 180 licence holders, ranging from large commercial irrigators to private use of small groundwater bores.
- The update of the policy demonstrates the ACT's commitment to improved water metering and measurement within the broader Murray Darling Basin and nationally.
- The policy is expected to take effect in 2023. Implementation will be rolled out in stages and is expected to be completed by 2025.
- Each licence holder is responsible for their costs associated with the installation, maintenance and reading of a water meter.
    - Ongoing validation of accuracy is approx. $300-500 per meter every 5 years, payable by licence holders to external meter validators. However, options are being explored for the EPA to perform meter accuracy validation, which may reduce costs for licence holders at implementation roll-out.
    - If new water meters are required, the cost for a licence holder to purchase and install a water meter is approximately $3,000 per meter.

Background Information

- The National Water Initiative (2004), the National Framework for Non-urban Water Metering (2009), and the Murray-Darling Basin Compliance Compact (2018) requires States and Territories to implement consistent water metering standards to ensure equity around water sharing and the protection of water resources.

Cleared as complete and accurate:	24/04/2023	
Cleared for public release by:	Executive Group Manager	Ext: 78628
Contact Officer name:	Tom Nielsen	Ext: 54644
Lead Directorate:	Environment, Planning and Sustainable Development	

- The Metrological Assurance Framework 2 (MAF2) is a part of the National Framework and describes the key requirements to ensure a nationally consistent compliance approach for non-urban water meters to comply with Australia Standard 4747: Meters for non-urban water supply (AS4747).
- The policy transitions current EPA non-potable metering guidelines to the Australian Standards by including several key new requirements:
    - use of pattern approved meters;
    - validation of meter installations by a certified person;
    - ongoing meter maintenance and accuracy testing; and
    - improved reporting and notification requirements for licence holders
- The Commonwealth's Inspector General Water Compliance Murray Darling Basin - Metering Report Card shows that the ACT is the only jurisdiction with 100% of water take metered. The implementation of this policy will enhace reporting on the metering accuracy on the report card.
- The taking of surface water and groundwater in the ACT is regulated under the *Water Resources Act 2007* by the EPA.
- The EPA will be responsible for implementing and enforcing the Non-urban Water Metering Policy.

QUESTION TIME BRIEF

Portfolio: Water, Energy and Emissions Reduction

The Leaf Collective Program

Talking points

- The Leaf Collective is a community-based social-marketing program that aims to reduce nutrient pollution from leaf litter (this year including grass clippings) through community education and behaviour change.
- The program focuses on increasing community understanding of the connection between leaf litter on their block and algal outbreaks in urban waterways, and helping community to turn leaf litter into a valuable resource.
- It has been designed and delivered by Social Marketing @ Griffith (based at Griffith University) in collaboration with multiple community organisations and individuals, as well as ACT Government stakeholders.
- Non-Government partners include: the ACT Catchment Groups, Tuggeranong Community Council, Scouts ACT, SEE-Change, Canberra Organic Growers Society, The Compost Revolution, Communities at Work, Corkhill Bros, Brindabella Waste and Capital Scraps Composting.
- Two pilot program evaluations have demonstrated success in changing social norms and behaviours. For example, the volume of leaves that survey participants reported collecting increased by 13% after the 2021 autumn campaign and by 11% after the 2022 summer campaign.
- The planned treatment areas for this autumn's campaign are suburbs in the Lake Tugeranong and Yerrabi Pond catchments.
- The program was launched on 2 May and will continue until 9 June. The final event is intended to be a public forum, held in Tuggeranong from 5pm to 7:30pm on 9 June 2023. On 10 June the follow-up survey will start.

Background Information

- Diffuse-source nutrient pollution from urban areas has been identified as the primary contributor to elevated nutrient levels in the lakes of Canberra.
- An expert-elicitation survey has been undertaken to rank categories of householder behaviours for their potential to reduce nutrient pollution entering waterways. Behaviours related to reducing nutrient pollution from leaves were identified as having the greatest potential impact.
- Focusing on specific sources of phosphorus with separate interventions to support behaviour change is most effective, as each behaviour has specific barriers that need to be targeted. It also allows the most accurate measurement of impact and assessment of cost-effectiveness.
- Research into whether and how to support reduction of fertiliser run-off by householders and garden service professionals is underway.

Cleared as complete and accurate:	25/04/2023		Personal information
Cleared for public release by:	Executive Group Manager	Phone:	
Contact Officer name:	Frank Garofalow	Phone:	
Lead Directorate:	Environment, Planning and Sustainable Development		

- The Healthy Waterways team will collect and analyse footage of leaf litter in street gutters in the treatment and control areas from cameras on green-bin collection trucks, to help assess the impact of the program and its cost-effectiveness in reducing nutrient pollution. Some of the value of this project may be lost if the autumn campaign does not proceed.
- Griffith University has contributed in-kind support to this project which they estimate at a value of $140,000. This includes un-charged staff time from a senior professor, a senior researcher, and an honours student.
- As part of the Expanding Healthy Waterways initiative, there has been agreement to design, deliver and evaluate a scaled-up Leaf Collective program in 2022-23.
- Continuing the ACT Healthy Waterways program is noted in Appendix 5 of the Parliamentary & Governing Agreement for the 10th Legislative Assembly (17.9 Expand the Healthy Waterways program ($30M over four years).