



Australian Government



Lake Victoria annual compliance report 2019

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Acknowledgement of the Traditional Owners of the Murray–Darling Basin

The Murray–Darling Basin Authority pays respect to the Traditional Owners and their Nations of the Murray–Darling Basin. We acknowledge their deep cultural, social, environmental, spiritual and economic connection to their lands and waters.

The guidance and support received from the Murray Lower Darling Rivers Indigenous Nations, the Northern Basin Aboriginal Nations and our many Traditional Owner friends and colleagues is very much valued and appreciated.

Aboriginal people should be aware that this publication may contain images, names or quotations of deceased persons.

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Abbreviations

ACID	Aboriginal Cultural Information Database
AHD	Australian Height Datum
AHIP	Aboriginal Heritage Impact Permit
BMEC	Barkindji–Maraura Elders Council
DPIE BCD	NSW Department of Planning, Industry and Environment – Biodiversity and Conservation (former OEH)
DPIE Water	NSW Department of Planning, Industry and Environment - Water
DSM	Digital Surface Model
Heritage Division	Department of Premier and Cabinet – Heritage Division (former OEH)
LVAC	Lake Victoria Advisory Committee
LVCLPoM	Lake Victoria Cultural Landscape Plan of Management
LVOS	Lake Victoria Operating Strategy 2002
LVWG	Lake Victoria Working Group
MDBA	Murray–Darling Basin Authority
SA Water	South Australian Water Corporation
SRP	Scientific Review Panel

Quick index

Condition	Condition subject
Condition 1-2	<ul style="list-style-type: none"> Commencement and duration
Condition 3	<ul style="list-style-type: none"> Proposed works
Condition 4	<ul style="list-style-type: none"> The MDBA to be responsible for the compliance with the AHIP
Condition 5	<ul style="list-style-type: none"> Suitably skilled staff Project Manager to oversee the actions relating to this AHIP
Condition 6	<ul style="list-style-type: none"> Project Manager to oversee the actions relating to this AHIP
Condition 7	<ul style="list-style-type: none"> Project Manager to oversee the actions relating to this AHIP
Condition 8	<ul style="list-style-type: none"> Salvage of Aboriginal objects under this AHIP
Condition 9	<ul style="list-style-type: none"> Lake Victoria Cultural Landscape Plan of Management
Condition 11	<ul style="list-style-type: none"> Salvage of Aboriginal objects under this AHIP
Condition 12	<ul style="list-style-type: none"> Salvage of Aboriginal objects under this AHIP
Condition 13-20	<ul style="list-style-type: none"> Lake Victoria Cultural Landscape Plan of Management
Condition 20-23	<ul style="list-style-type: none"> BMEC meetings and BMEC involvement at Lake Victoria
Condition 24-26	<ul style="list-style-type: none"> Scientific Review Panel
Condition 27-40	<ul style="list-style-type: none"> Lake Victoria Cultural Landscape Plan of Management
Condition 30	<ul style="list-style-type: none"> Communication with the broader community
Condition 31	<ul style="list-style-type: none"> Communication with the broader community
Condition 32	<ul style="list-style-type: none"> Access
Condition 33	<ul style="list-style-type: none"> Aboriginal Employment
Condition 34	<ul style="list-style-type: none"> Cultural heritage conservation Aboriginal Cultural Information Database (ACID)
Condition 35	<ul style="list-style-type: none"> Lakeshore stability conservation and monitoring
Condition 36	<ul style="list-style-type: none"> Native vegetation regeneration conservation and monitoring
Condition 37	<ul style="list-style-type: none"> Managing non-native fauna
Condition 38	<ul style="list-style-type: none"> Water quality monitoring
Condition 39	<ul style="list-style-type: none"> Cultural heritage conservation

Condition	Condition subject
	<ul style="list-style-type: none"> Monitoring and burial protection works
Condition 40	<ul style="list-style-type: none"> Research at the Lake
Condition 41-44	<ul style="list-style-type: none"> Lake Victoria Operating Strategy (LVOS)
Condition 45-47	<ul style="list-style-type: none"> Annual Reporting
Condition 48	<ul style="list-style-type: none"> Aboriginal Cultural Information Database
Condition 49-54	<ul style="list-style-type: none"> Impact on areas outside the Lake
Condition 55	<ul style="list-style-type: none"> Cultural and natural heritage inventory
Condition 56	<ul style="list-style-type: none"> Cultural heritage conservation Salvage of Aboriginal objects under this AHIP
Condition 57	<ul style="list-style-type: none"> Damage or discovery of Aboriginal objects not covered by the AHIP
Condition 58-59	<ul style="list-style-type: none"> Indemnity and release
Condition 60	<ul style="list-style-type: none"> Written notice and notification of fieldwork
Condition 61-75	<ul style="list-style-type: none"> Salvage of Aboriginal objects under this AHIP
Condition 62	<ul style="list-style-type: none"> Suitably skilled staff
Condition 63	<ul style="list-style-type: none"> Variation to conditions
Condition 64	<ul style="list-style-type: none"> Communication with the broader community Commencement, duration and revocation of the AHIP Notice to cease or restrict salvage activities
Condition 65-66	<ul style="list-style-type: none"> Access for officers of DPIE BCD (former OEH)
Condition 67	<ul style="list-style-type: none"> Access
Condition 68-69	<ul style="list-style-type: none"> Communication with the broader community
Condition 71	<ul style="list-style-type: none"> Obligations under other legislation
Condition 72	<ul style="list-style-type: none"> Lakeshore stability conservation and monitoring Cultural and natural heritage inventory Impact of salinisation on fauna and faunal habitat
Condition 73-75	<ul style="list-style-type: none"> Recovery and care of Aboriginal objects
Condition 76	<ul style="list-style-type: none"> Cultural heritage conservation Monitoring and burial protection works
Condition 77-80	<ul style="list-style-type: none"> Recovery and care of Aboriginal objects

About this report

Lake Victoria (the Lake) is a naturally occurring, shallow, freshwater lake in south-western New South Wales, near the South Australian and Victorian borders. It is approximately 60 river kilometres downstream of the Murray–Darling junction at Wentworth. Lake Victoria is a culturally and spiritually significant place to the Aboriginal community, particularly the Barkindji and Maraura people. There is extensive evidence of Aboriginal occupation at the Lake spanning at least the past 30,000 years. Since 1928, Lake Victoria has been operated by the Murray–Darling Basin Authority (MDBA) and its predecessors as regulated off-river storage. Lake Victoria plays an extremely important role in the regulated supply of water along the River Murray System.

Lake Victoria is owned by the South Australian Government and operated by the South Australia Water Corporation (SA Water) on behalf of a joint venture comprising the Australian, New South Wales, Victorian, and South Australian Governments. SA Water's program of works is funded and directed by the MDBA on behalf of these four asset-controlling governments.

Regulation of the Lake and agricultural land practices adjacent to the Lake have contributed to the exposure and erosion of Aboriginal cultural material on the lakeshore and surrounding cliffs and land; in particular Aboriginal burial grounds. Since 1994, substantial works have been built to protect known burials from wave and wind erosion where possible. In 1998, an Environmental Impact Statement (EIS) was prepared to support a Section 90 Consent Permit, now an Aboriginal Heritage Impact Permit (AHIP), under the *National Parks and Wildlife Act 1974* (NSW). This Consent allows for the continued disturbance of non-burial Aboriginal objects by regulation of the Lake, provided a series of Conditions are complied with as outlined in the AHIP.

This Annual Report is provided to demonstrate compliance with each of the Conditions contained in the Variation of AHIP 2471 issued in August 2015. Unless revoked, the current AHIP is in force until 4 August 2020. The development of a new AHIP application began at the end of 2018 with the engagement of a consultancy to scope the AHIP process, time-line and potential budget for the consideration of the MDBA. This work has continued throughout 2019 which is detailed later in this report.

Some parts of this report contain excerpts of data and information from external sources. Full reference details of these other sources are provided at the end of this report.

Statement of cultural heritage condition for the reporting period

Despite the continuing hot dry weather this year, cultural heritage protection at Lake Victoria has proceeded well. Natalie Dando replaced Digby Jacobs as Director Riparian Program in March. Digby was acknowledged for his long association with Lake Victoria. Baden Moore (Indigenous field officer) resigned from SA Water after seven years of service as well as David Chudleigh (coordinator) who had been working at Lake Victoria for five years.

The Barkindji Maraura Elders Council (BMEC) annual 'emu bob' occurred in April and involved 20 people a day walking the Lake foreshore to identify any new Indigenous remains or artefacts. Four new burials were discovered. The annual archaeological visit and the MDBA Scientific Review Panel (SRP) members visit also occurred during April. Landscape management and monitoring works on the ground were inspected and cultural heritage data collection were discussed.

The SA Water Indigenous Employment Program continued to provide work at Lake Victoria throughout 2019. This work involved burial mound replenishment, cemetery hill fencing, and monitoring of new works. Planting continued on the Snake Island dune and the nursery has been upgraded for a new year of plants. Kangaroo grazing has continued causing damage around the Lake. Pest control programs continued but rabbit numbers have reduced due to the drought and it has been too dry for much weed growth. The Snake Island/Duncan's Corner boundary fence upgrade has been completed.

BMEC nominated for an award titled 'Aboriginal and Torres Strait Islander Knowledge and Practice in Waterway Management' with the River Basin Management Society (RBMS) and won the award on the local scale. Kingsley Abdulla, BMEC chairman, and Roland Smith Senior, BMEC vice chairman, attended the award night on 15 November in Melbourne.

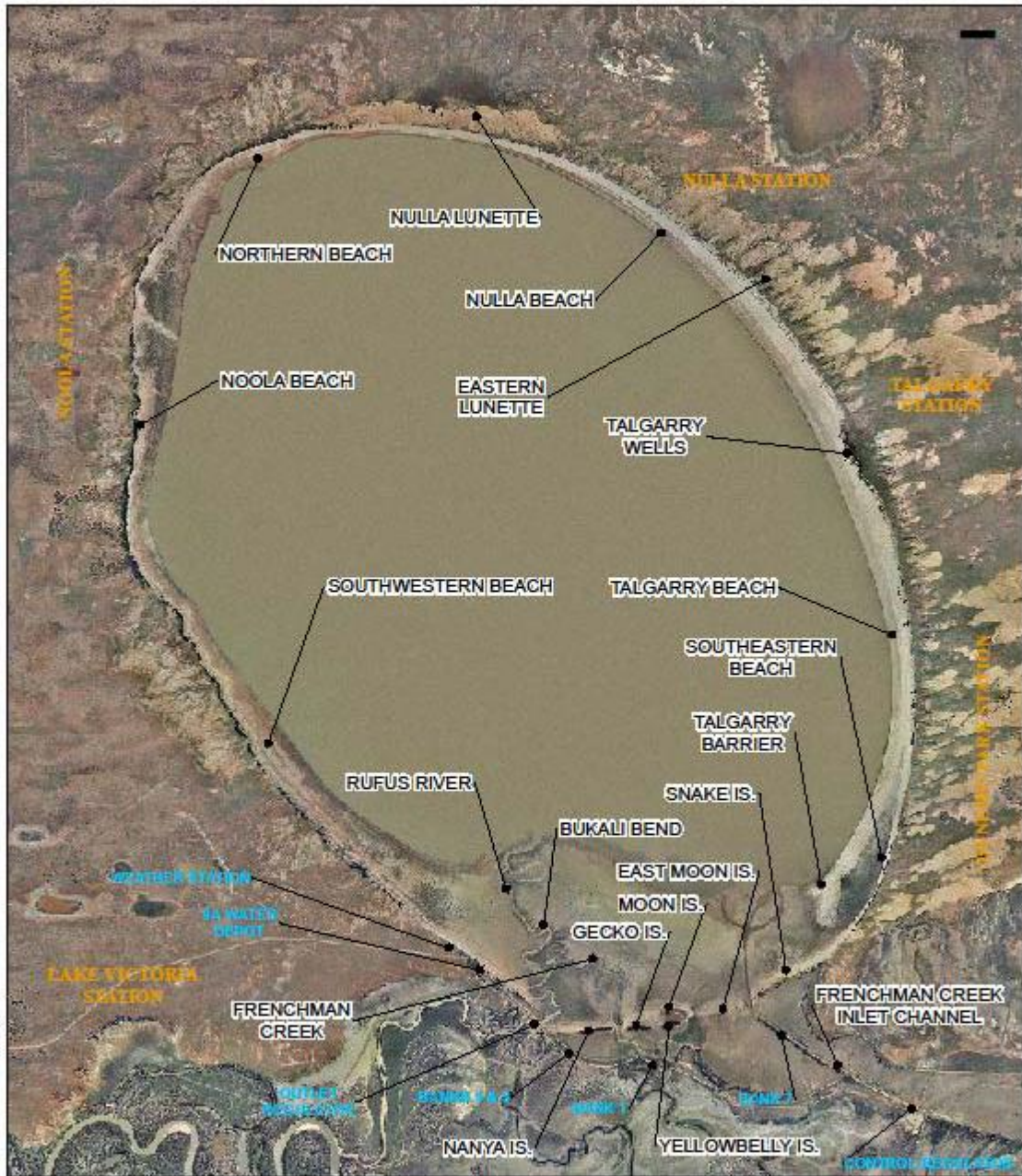
Property disposal is on track with subdivision almost complete and marketing beginning in late January 2020. Transgrid, the high voltage powerline connection between SA and NSW, is planned to cross Nulla station and will be visible from the north of the Lake. LVAC have asked for further consultation on the final route selection and scale and type of works.

NGH Environmental was engaged to undertake the AHIP 2020 as a single consultancy incorporating both project management and community consultation. LVAC members will act as a sub-committee to advise the process. A survey of areas not previously studied or monitored in the 'Big Lake' area was undertaken over 10 days in November as part of the AHIP 2020 requirements and BMEC assisted on site.

Radiocarbon dating was conducted on samples of shell midden and a loose tooth were taken from the clay pan layer at Nulla Lunette. The tooth was too far degraded to test but the shell midden samples were revealed to be between 21,950 to 29,500 cal BP. This is the oldest evidence for human occupation at the Lake. The results of the sampling were presented at the Australian Archaeological Association Conference in December 2019 with the BMEC Chair present.

Dr Jane Lennon AM PhD
Chair Lake Victoria Advisory Committee (LVAC)
2019

LAKE VICTORIA STORAGE CULTURAL HERITAGE COMMON PLACE NAMES



PROJECTION - UTM
DATUM - GDA84

SCALE 1:75,000

Figure 1 - Lake Victoria Storage - Cultural Heritage Common Place Names

Snapshot of the Lake Victoria Program in 2019

Cultural heritage protection, monitoring, and the Aboriginal Cultural Information Database (ACID)

- Extreme dry, hot, and dusty conditions in 2019 made for a challenging time across all activities at the Lake.
- Ten new burial sites were discovered during the reporting period, four of those were inside the AHIP area and six were outside. The total number of recorded burial sites for the period is 365.
- The Aboriginal Cultural Information Database (ACID) and the AHIMS now contains information on the 365 burial sites, of which 363 were monitored during the reporting period.

Lake Victoria Advisory Committee (LVAC) and community relations

- There were three LVAC and four BMEC meetings held during the 2019 reporting period.
- Cultural heritage monitoring and protection measures undertaken were communicated at LVAC and BMEC meetings and through the monthly communication newsletter 'Lake Yarning' produced by SA Water.
- Neighbouring landholders continued to provide advice on land management and cultural heritage issues at Lake Victoria through LVAC and one-on-one conversations.
- The notification requirements associated with the new Lake Victoria AHIP application were advertised and in local media outlets in October 2019.

Employment of Aboriginal people at Lake Victoria

- Aboriginal employment continued at Lake Victoria throughout the reporting period by both SA Water and NSW DPIE Water, via an agreement with local provider MADEC Employment.
- Keah McLeod resigned from her traineeship at Lake Victoria in April 2019.
- Billy Cook and Tyson Lange commenced work as the incoming trainees. Both later left their positions to take up other opportunities closer to home.
- BMEC participated in burial protection and monitoring programs at the Lake across the period.

Research activities, the Scientific Review Panel (SRP) and monitoring program

- The SRP met twice during 2019 in April and September including an onsite visit to Lake Victoria.
- SRP continued to oversee the development of the monitoring program with emphasis on remote vegetation monitoring (drone data and imagery collection), GIS analysis techniques and ground truth methodologies.
- The north-east shoreline and Talgarry Barrier continue to be the areas where cultural heritage is most at risk from wave and wind erosion.

Land management

- Land management activities continued both inside and outside the AHIP area.
- Kangaroo management across joint-venture owned properties continues under an occupier's licence to harm protected animals and commercial harvest conditions set by National Parks & Wildlife Service (NPWS). A total of 3329 kangaroos were removed across NSW managed properties over the reporting period.
- Feral goats continued to be removed from joint-venture owned properties by DPIE Water's authorised contractor. A total of 1210 animals have been removed using a combination of mustering and trapping at water points. This number is down slightly from the previous years due to dry conditions and harvesting activities on surrounding properties.
- Property disposal preparation of both Nulla and Noola Stations continued throughout 2019 with the properties ready for marketing and sale in early 2020.

Shaun Richardson

Lake Victoria Program Coordinator
2019

1. Compliance response

1.1 Advisory and Review Group Conditions

1.1.1 Lake Victoria Advisory Committee and community relations (Conditions 13-20, 45)

- The MDBA continued to maintain the role and status of the LVAC as an advisory committee to the MDBA and partner government agencies.
- LVAC continues to provide a major voice to the Aboriginal people with an interest in, and historic ties to, the Lake.
- Three LVAC meetings were held during the reporting period: March 2019 (Meeting 87), July 2019 (Meeting 88) and November 2019 (Meeting 89).
- The LVAC attendee list for 2019 is provided on page 39 and there were no changes to the stakeholders represented on LVAC. However, invitations were circulated to local landholders in December 2019 seeking expressions of interest to fill a vacant landholder representative position.
- The Dareton Local Land Council (DLALC) and Tar-ru Lands Board continue to be invited to attend LVAC meetings however did not attend during the reporting period. Minutes are sent through to these groups as well as NTS Corp.
- The minutes of all LVAC meetings were distributed to stakeholders in a timely manner.
- LVAC was provided with a summary of the partner agencies' (MDBA, DPIE Water and SA Water) actions undertaken to comply with the AHIP conditions at each meeting, including Aboriginal cultural heritage protection and land management.
- The 2018 Lake Victoria Annual Compliance Report was provided to DPIE BCD for approval in April 2019 as per AHIP Condition 45. The final copy of the report was distributed to LVAC in early at Meeting 88 in July 2019.
- LVAC received updates on past, current, and future River Murray System and Lake Victoria operations as per advice from River Operations at the MDBA.
- LVAC were informed of the cultural heritage protection measures undertaken at the Lake by the SA Water Cultural Heritage team through presentations delivered at meetings throughout the year.
- MDBA recognised that, as per the approved CLPoM for 2019, an additional landholder representative was required to sit on the LVAC. The process for an Expression of Interest to fill this position was sent out in November 2019.

1.1.2 BMEC involvement at Lake Victoria and BMEC meetings (Conditions 20-23)

- The BMEC continues to provide valuable information regarding appropriate management of Aboriginal cultural heritage and the cultural landscape at the Lake to the MDBA and other government agencies.
- The MDBA continues to resource the BMEC and be guided by the NSW Government guidelines on advisory committee remuneration.
- There were two BMEC meetings held on 6 March and 13 June as well as an AHIP update meeting held at the Lake camping grounds on 22 November. A separate Annual General Meeting (AGM) was held on 26 September where three new members were appointed.
- BMEC continued to be involved in multiple cultural heritage monitoring and protection programs throughout 2019, including sampling of human remains and shell midden through an AHIP (further information under 1.1.5 on page 12).
- BMEC have been involved throughout the process for the new AHIP for the whole of Lake Victoria which included substantial survey works conducted in areas of the Lake surrounds which hadn't been surveyed previously (more information under 1.4 on page 35).
- The BMEC were nominated for the River Basin Management Society 2019 Awards for the category 'Aboriginal and Torres Strait Islander Knowledge and Practice in Waterway Management'. BMEC Executive attended the awards night in November 2019 and won the award for local scale works.

1.1.3 Lake Victoria Working Group (LVWG)

- The Lake Victoria Working Group (LVWG), a sub-committee of the LVAC, met three times during the reporting period: March 2019 (Meeting 40), July 2019 (Meeting 41) and November 2019 (Meeting 42).
- The LVWG exists to improve communication between agency staff and to address out-of-session business relevant to the state and commonwealth managing agencies, both inside and outside the AHIP area as documented in the Lake Victoria and Surrounding Lands Management Arrangements.
- Monthly operational meetings between DPIE Water and SA Water continued throughout the year to coordinate works and improve on-ground outcomes.
- Some of the other key issues discussed by the LVWG included:
 - Agency staff recruitment and restructures;
 - Pest plant and animal control across government-managed lands;
 - GHD Consultants engaged to complete the AHIP scoping study for the 'Big Lake' area;
 - NGH Environmental engaged through MDBA to undertake the project management and engagement aspects of the new AHIP for 2020;
 - The 2019 revision of the Lake Victoria Cultural Landscape Plan of Management (LVCLPoM);
 - Subdivision for purposes of a buffer area around the Lake and property disposal progress for Nulla and Noola Stations;
 - Cultural heritage conservation and monitoring by the SA Water Cultural Heritage Team and BMEC members;

- SA Water on ground works including erosion control, building and track upgrades and revegetation works;
 - DPIE Water on ground works including pest animal and plant management/control programs;
 - AHIP for testing of human remains and shell midden found in the hardpan layer of the Nulla lunette;
 - Repatriation of megafauna to Lake Victoria to be arranged by Heritage Division.
 - MDBA progress on refining analysis methods for lakeshore monitoring of vegetation and elevation using drone imagery supplied by SA Water;
 - Incident management and response in the Lake Victoria region;
 - Plans for DPIE BCD to inspect Talgarry for exposed cultural heritage material in conjunction with relevant landholders;
 - Lake Victoria Annual Report 2018;
 - Purpose and objectives of the LVWG reviewed and development into of terms of reference.
- New AHIP to be in place by August 2020 when the current AHIP expires.

1.1.4 Scientific Review Panel (SRP) (Conditions 24–26)

- The MDBA continues to maintain the SRP which provides technical scientific advice to LVAC.
- The SRP is chaired by the MDBA Director of the Riparian Program and it currently has four members with expertise in a range of fields including Aboriginal cultural heritage, management and protection, broader cultural heritage management, archaeology, wetland vegetation and ecology. Hydrology and river management advice is provided by MDBA staff, while natural resource management advice, on-ground observations and recommendations are provided by staff from both SA Water and DPIE Water.
- The SRP met twice over the reporting period on 10 April 2019, onsite at Lake Victoria, and 18 September 2019.
- John Magee (hydrogeology / geomorphology) retired from SRP after the first quarter of 2019. A decision has been made to postpone John’s replacement until the new AHIP is in place in August 2020, given that the role and composition of the SRP is likely to change at this time. Advice in the fields of hydrogeology and geomorphology is sought independently as required.
- MDBA staff continued to liaise with individual SRP members to work on;
 - the refinement and development of the lakeshore monitoring program using drone imagery and data / information presentation techniques,
 - archaeological information arising.
- Colin Pardoe participated in a two day cultural heritage survey at the lake which is discussed further in section 1.1.11 on page 14 of this report.
- The SRP continues to support the annual inspection of cultural heritage sites at the Lake by SRP, BMEC and LVAC members.
- During the year, the SRP also discussed and provided advice on:
 - Updates on the operation of the River Murray System and the impacts this has had on Lake Victoria;

- Proposals from SA Water for the Landscape Monitoring Program, including herbivore exclusion cages on the western foreshore
- Landscape Monitoring Trial to enhance the accuracy of Digital Surface Models (DSM);
- Use of infrared drone monitoring for kangaroo management;
- Requirement for new AHIP to be in place by August 2020;
- The role and function of SRP within the context of the upcoming requirement for a new AHIP;
- The review of the Lake Victoria Operating Strategy (LVOS);
- Symposium for Lake Victoria resources and publications;
- Vegetation mapping and monitoring processes;
- New UAV imagery processing methods used in annual monitoring and multi-year data analysis approaches.

1.1.5 Research at the Lake (Conditions 40)

- The MDBA is supporting a PhD study on the eco-hydrology of spiny sedge through the University of Melbourne. This agreement with the University was executed on 24 October 2018. The scholarship has been awarded to Ms Amali Dahanayake who will start this PhD in February 2020.
- DPIE Water engaged NGH Environmental, together with the support of BMEC, to put together an AHIP application for the testing of remains and shell midden located in the hardpan layer of the Nulla lunette in March 2018. The application was granted in August 2019 and sampling of a loose tooth as well as the shell midden was completed in the same month. Neale Draper was able to attend and assist with the sampling.
- The tooth was unfortunately too far degraded to test however positive results came from the three shell middens in the same clay pan layer as the burial the tooth was taken from. The shell midden samples were revealed to be between 21,950 to 29,500 cal BP. This represents the oldest dated material tested from the Lake and pushes back the oldest confirmed dates of occupation by over 10,000 years.
- NSW DPIE Fisheries requested permission to conduct a fish survey in Lake Victoria however due to timing and low lake levels they were unable to get to the sampling location.

1.1.6 Lake Victoria Cultural Landscape Plan of Management (CLPoM) (Conditions 9, 27–40)

- The MDBA continued to maintain and implement the Lake Victoria CLPoM to guide cultural heritage, land and water management in the area.
- The amended CLPoM was submitted to DPIE BCD on 30 May 2019 for approval. It was formally approved on 1 November 2019.
- The CLPoM was published on the MDBA website on 28 January 2020. It can be accessed at the following link: <https://www.mdba.gov.au/publications/mdba-reports/lake-victoria-cultural-landscape-plan-management-2019>

1.1.7 Communication with the broader community (Conditions 30, 31, 64(b), 68 & 69)

- The Lake Victoria CLPoM Communication Strategy continued to be implemented to communicate with the broader community on the significance of Lake Victoria.
- SA Water continued to send out the 'Lake Yarning' newsletter to BMEC, MDBA, DPIE and landholders. The newsletter outlines monthly cultural heritage protection and land management work conducted at Lake Victoria.
- The 2018 Annual Report was provided to the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS), Canberra.
- The MDBA and partner governments offered support to the BMEC for the Rufus River Memorial Day in 2019 however no event was organised.
- BMEC were actively involved in communicating the significance of Lake Victoria through their participation at the River Basin Management Society 2019 Awards night held in November 2019. BMEC nominated for the category of 'Aboriginal and Torres Strait Islander Knowledge and Practice in Waterway Management' and won the award on the local scale. Kingsley Abdulla, BMEC chairman, and Roland Smith Senior, BMEC vice chairman, attended the award night on 15 November in Melbourne.
- The results of the radiocarbon dating of shell midden (discussed in 1.1.5 on page 12) were presented at the Australian Archaeological Association Conference in 2019 by NGH Environmental representatives and the BMEC Chair.
- Reports or publications containing culturally sensitive information were referred to the BMEC prior to release.
- DPIE BCD, Australian Museum and LVAC continue to have the right to use and authorise the use of information collected under the AHIP with the approval of BMEC, on a case by case basis.

1.1.8 Access (Conditions 32 & 67)

- The CLPoM Access Protocol continued to be implemented during 2019.
- An AHIP induction document continues to be implemented as part of visits for staff and contract services to Lake Victoria.

1.1.9 Aboriginal employment (Condition 33)

- SA Water run an Indigenous Employment Program structured as a traineeship across a two-year period.
- Trainees are provided with an opportunity to gain a Certificate IV in Conservation and Land Management with TAFE. Trainees also receive experience and competency certification in the use and operation of heavy plant and in works related to the water management industry.
- Keah McLeod, who was part of the traineeship program, resigned in early 2019. Recruitment for two trainee positions lead to the employment of Billy Cook and Tyson Lange in March, however both trainees resigned before the end of 2019.
- Baden Moore, Acting Cultural Heritage Team Leader, resigned from his position in October 2019. Recruitment to fill this position commenced in December 2019.

- The DPIE Water Lake Victoria Program has an Aboriginal identified position currently vacant. This position is being reviewed as part of the new AHIP.
- BMEC Elders, BMEC proxies and the wider community were employed throughout the reporting period at the Lake to:
 - participate in burial monitoring and protection;
 - undertake cultural heritage monitoring;
 - assist with revegetation and nursery works when required;
 - share cultural knowledge with visitors, such as LVAC members and SRP members; and
 - share cultural knowledge and provide insight to the SA Water trainees.

1.1.10 Cultural heritage conservation (Conditions 34, 39, 56, 70, 76)

Strategies to monitor and conserve cultural heritage

- The Lake Victoria CLPoM includes strategies to conserve and monitor cultural heritage both inside the AHIP and on adjacent land. These strategies were reviewed as part of the 2018 revision of the CLPoM and implemented in 2019 once the revision was accepted by DPIE BCD.
- Approved techniques and inspections of the lakeshore continued as part of protecting newly exposed burial sites and replenishing existing protections.
- The monitoring program allows for condition and location of new and existing burials to be recorded by the SA Water Cultural Heritage team using an ArcGIS enabled portable geographical positioning system (GPS) unit. These monitoring results are then uploaded into the Aboriginal Cultural Information Database (ACID).
- Improvements to the Structured Cultural Heritage Monitoring Program allow for artefact and new burial information to be more easily uploaded into AHIMS.
- The ACID can be used to generate reports and maps of burials and cultural heritage records upon BMEC request and for annual reporting. It is also used to inform scheduling of conservation works, priority management actions and further monitoring during the year.
- BMEC members were involved with the cultural heritage monitoring program during the reporting period, where practical and a summary of the monitoring results were provided at both BMEC and LVAC meetings.

1.1.11 Monitoring and burial protection works (Conditions 39, 76)

Results from monitoring burial protection works

- Monitoring of burial protection works by the SA Water Cultural Heritage Team, assisted by BMEC and other community members, continued during the 2019 reporting period.
- A total of 363 of 365 recorded burials were monitored during the reporting period. There were 12 burials in total classified as high or very high priority for replenishment works; all of which were inside the existing AHIP.
- SA Water continue to inspect 'at-risk' areas of the foreshore and lunette after high wind events.

- DPIE BCD archaeologist and the BMEC chair were notified at the completion of major cultural heritage field work including protection of new burials and results of cultural heritage surveys during 2019 reporting period at LVAC. BMEC were also heavily involved in the replenishment and protection works.

Annual Archaeological Inspection – 8 and 9 April 2019

- The focus for the 2019 annual inspection included:
 - Inspect recent cultural heritage protection and monitoring trials by SA Water;
 - Inspect the success of revegetation works along the shoreline;
 - Discuss options for dating cultural heritage artefacts and remains; and
 - Share ideas and knowledge between BMEC Elders, archaeologists and agency staff.
- Attendees of the inspection included:
 - BMEC: Kingsley Abdulla, Shakira Abdulla, Gary Abdulla Senior, Leonie Johnson, Roland Smith Senior, Tamika Smith, Ricky Handy
 - SA Water: Baden Moore, Keah McLeod, David Chudleigh, Tim Kruger, Tyson Lange, Billy Cook
 - DPIE Water: Shaun Richardson
 - DPIE BCD: John Gilding
 - MDBA: Digby Jacobs, Olin Cox, Hugo Bowman
 - SRP: Pauline English, John McGee, Jane Lennon, Jane Roberts
 - Archaeologists: Dr. Colin Pardoe
- This years' inspection included an invitation to all SRP members and the SRP meeting was held onsite at Lake Victoria.
- The first day focussed on the Nulla lunette and Nulla beach while working clockwise around the Lake. The second day focused on Talgarry Beach, Talgarry Barrier and working back anticlockwise to the depot
- It was noted that the extent of erosion on the hard pan layer of the Nulla lunette was substantial since the previous year. Extra burial protection works were undertaken by the SA Water Cultural Heritage team post archaeological inspection to ensure the integrity of the burial associated with the AHIP application occurred.
- The level of spiny sedge appeared reduced from previous years on the foreshore. Recent deflation of sand on the Talgarry Barrier left large areas of the HUS pavement exposed. Talgarry Barrier was looking well vegetated within the higher elevation contours however the lake-facing side was subject to ongoing erosion and remains a concern.

1.1.12 Aboriginal Cultural Information Database (ACID) (Conditions 34 & 48)

- The Aboriginal Cultural Information Database (ACID) is a spatial database containing all known Aboriginal burials, cultural heritage and cultural sites. The database continues to be updated and maintained by SA Water on behalf of the Lake Victoria Program.
- During 2019, the SA Water Cultural Heritage Team were responsible for AHIMS submissions of non-burials and objects of cultural significance.
- AHIMS burial site cards were submitted by John Gilding (DPIE BCD) as part of completing the assessments for human remains certificates.

Burial sites

- The ACID now contains 365 burials, 250 of which are recorded inside of the AHIP boundary. Condition monitoring occurred for 363 burials once in the season, 262 were able to be monitored more than once. The remaining 2 burials were inaccessible due to water levels.
- A total of 10 newly discovered burials were added to the ACID during the reporting period (Table 1).
- Of the 10 newly discovered sites in 2019, 4 were within the AHIP area and 6 were outside of the AHIP.
- Burial SE-09 was removed from the system after John Gilding confirmed that it was not human remains.

Table 1 - Summary of burials records in the ACID for 2019 reporting period

Aboriginal Cultural Information Database from 1 January to 31 December 2019			
Type of burial site	Location of site	Number of burials	Total
Known burial sites recorded in ACID	Inside AHIP	250	365
	Outside AHIP	115	
Burial sites newly discovered in 2019	Inside AHIP	4	10
	Outside AHIP	6	

Non-burial sites and objects

- As of 31 December 2019, a total of 742 non-burial sites and objects were recorded in the ACID. A total of 44% of these were able to be monitored in 2019. This monitoring program is still in development with MDBA, SA Water and DPIE BCD and improvements will continue in to the future.
- A significant number of new artefacts have been discovered toward the end of the reporting period, as part of the preparation for a new Aboriginal Heritage Impact Permit for the Lake Victoria and the Big Lake area. These new artefacts are not detailed in this report and are being uploaded to AHIMs as part of the new permit application. The artefacts include:
 - Scar trees
 - Artefact scatters
 - Hearths; and
 - Middens
- There were no requests from other parties to access the ACID in 2019.

1.1.13 Lakeshore stability conservation and monitoring (Conditions 35, 72, 76)

- Erosion is a major process affecting the stability of the foreshore of Lake Victoria. The Lake Victoria CLPoM outlines strategies for the management and monitoring of lakeshore erosion.

- The monitoring program continues to explore new methods with the aim of achieving best practice in identifying and prioritising areas for conservation and intervention. SA Water have conducted coir log trials on the Talgarry Wells lakebed to assist with erosion management and cultural heritage protection.

Shoreline profiles

- A total of 37 shoreline transects are currently monitored annually around the foreshore of Lake Victoria, some since 1995. Each transect is generally surveyed annually to monitor the extent of sediment erosion and deposition and are reviewed by the SRP.
- Profiles on the eastern foreshore indicated that there had been a net loss of sediment between 2018 and 2019. This occurred in a series of bands parallel to the lakeshore and was likely part of the easterly migration of sediment anecdotally observed in this area. In some areas this erosion occurred in the vicinity of known burials, and so is some cause for concern.
- Erosion was detected on the lake-facing side of Talgarry Barrier in areas with high densities of cultural heritage material. Much of this erosion is believed to be the reworking of previously deposited beach berms, and so it is unlikely that this would disturb in situ cultural heritage material. Deposition has occurred on the opposite side of the Barrier, suggesting that sediment is moving eastward here, similar to the eastern foreshore.
- Profiles on the northern, western and southern lakeshores showed only very minor changes that did not appear to pose a threat to areas with high cultural heritage densities. In particular, the movement of a substantial sand sheet across both Snake and Moon Islands observed from 2017 to 2018 appears to have ceased in 2019.

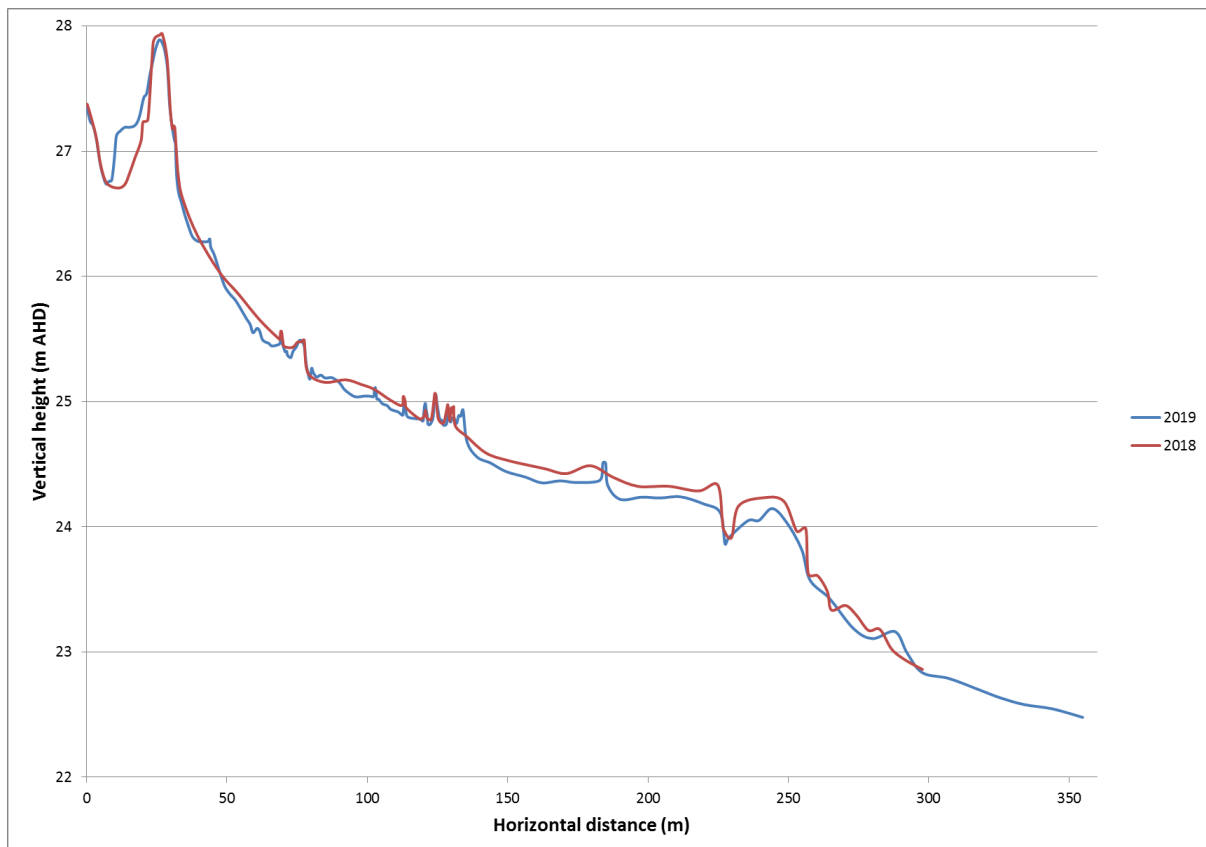


Figure 2 - Shoreline profile 28PS on the eastern foreshore, showing a significant loss of sediment in three bands between 2018 (red) and 2019 (blue).

Observations from lakeshore change mapping

- In 2019 lakeshore change maps were calculated from UAV derived digital surface models (DSMs) for the eastern and northern lakeshores. Due to issues with the accuracy of the 2018 and 2019 DSMs these maps were deemed unreliable on the western and southern lakeshore.
- As in 2018, the DSMs were calibrated using the shoreline profiles as ground control points to increase their accuracy. This corrected tilting in many of the individual DSMs.
- Lakeshore change maps indicated the presence of large bands of erosion running discontinuously from the northern lakeshore down to Talgarry Barrier. These bands broadly agree with erosion present in the shoreline profiles on the eastern foreshore, and in some places intersect with known burial sites. Where this has occurred, these areas have been prioritised for inspection and further management.
- A band of deposition can be seen running along the length of the eastern foreshore from 26.5 to 27m AHD. This likely represents the formation of the incipient foredune that has been observed over several years. Further deposition was also detected near Snake Island, and the eastern-facing side of Talgarry Barrier.
- The full results of lakeshore change mapping were presented in the Lake Victoria Annual Lakeshore Monitoring Report 2018-19, which was finalised in December 2019.

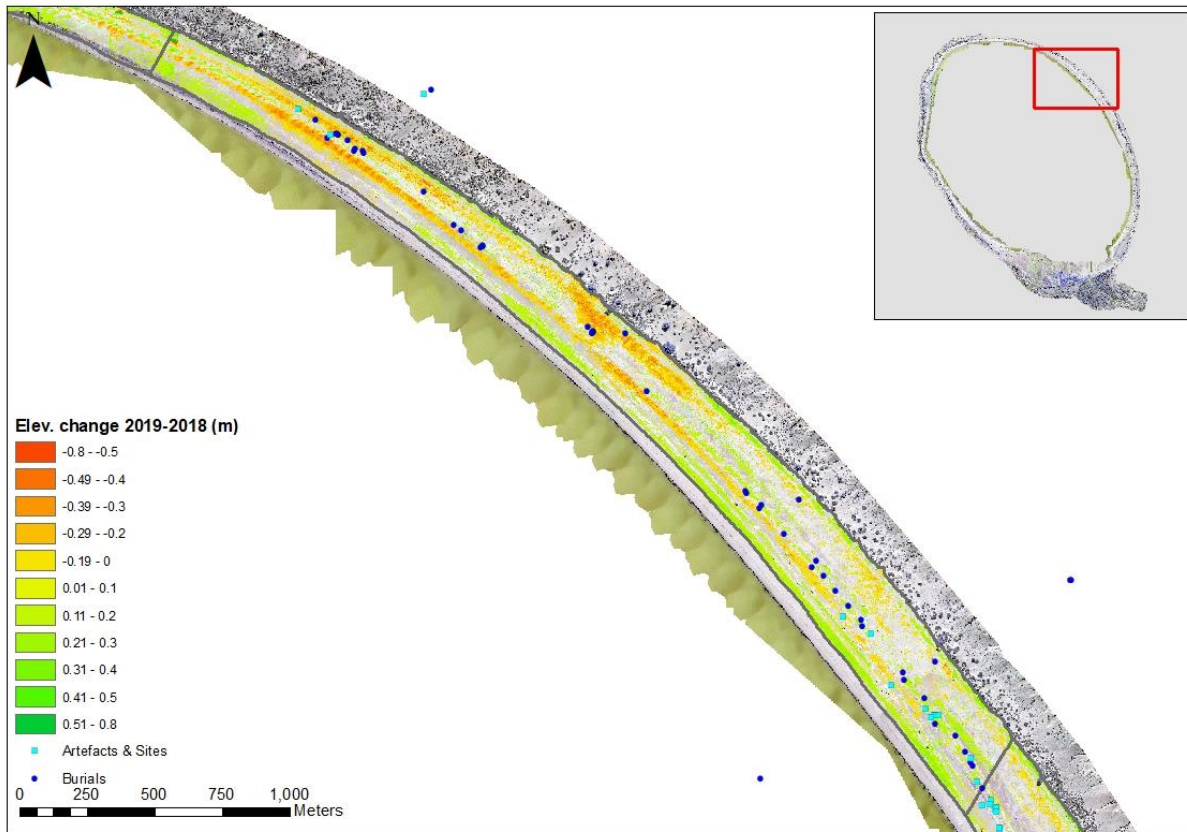


Figure 3 - Lakeshore change map for Nulla Southern Beach, showing large bands of erosion occurring close to known burial sites.

1.1.14 Native vegetation regeneration, conservation and monitoring (Condition 36)

- The 2007 Lake Victoria CLPoM contains strategies for lakeshore vegetation conservation and monitoring. These strategies include the ongoing implementation of the LVOS which aims to keep the Lake low at certain times of the year to encourage the growth and recruitment of spiny sedge and other native riparian vegetation.
- Promoting reestablishment of vegetation on the foreshore is also achieved through keeping surrounding government-owned properties destocked.
- Spreading spiny sedge culms and small-scale plantings in targeted areas requiring intervention such as Snake Island.
- In addition, pest animal control programs are undertaken to reduce grazing by kangaroos, goats and rabbits.

Vegetation Photo monitoring

Over the short term, visual examination of the 2019 photo points and comparison with 2018 photo point collection show that:

- There continues to be extensive coverage of spiny sedge and native liquorice on the eastern portion of the southern lakebed, however some grazing has occurred on East Moon Island since the 2017-18 monitoring period (Figure 4).
- Stands of phragmites on West Nanya Island are senescent due to prevailing drought conditions (Figure 5).

- Photo monitoring points indicate that while vegetation in some areas of the western foreshore has remained stable, other areas have been grazed and have declined in condition (Figure 6).
- There has been some expansion of annuals on parts of the lower foreshore (Figure 7).
- There has been little change on the northern foreshore, with vegetation still largely absent (Figure 8).
- Photo point transects on the eastern foreshore show that spiny sedge persists in this area. There has been a minor improvement in the condition of sedge (Figure 9).
- Photo point transects on the south-eastern foreshore show extensive grazing of spiny sedge around Snake Island (Figure 10).



Figure 4 - Spiny sedge experiencing grazing pressure at East Moon Island, KEM03 (left: 2018, right: 2019)



Figure 5 - A decline in condition of phragmites on West Nanya Island at KWN02 (left: 2018, right, 2019)



Figure 6 - There has been a decline in vegetation condition on the western foreshore at KVB07, likely due to grazing and dry conditions (left: 2018, right: 2019)



Figure 7 - There has been some growth of annuals on the lower western foreshore at KVB11 (left: 2018, right: 2019)



Figure 8 - There continues to be an absence of spiny sedge on the north-eastern foreshore at KNU05 (left: 2018, Right: 2019)



Figure 9 - Vegetation on the eastern foreshore appears relatively stable at KTN09 (left: 2018, right: 2019)



Figure 10 - Evidence of substantial grazing has been detected in the vicinity of Snake Island at KSN08 (left: 2018, right: 2019)

Observations from UAV Imagery

- In 2019 MDBA reviewed and refined the processing methods for UAV imagery, leading to results that are much quicker to produce and more reliable. The new methods have also allowed the southern lakebed to be processed for the first time.
- Vegetation cover on the western, northern and eastern foreshores remained largely unchanged between 2018 and 2019. The only significant increases in cover around the lake occurred on the western foreshore, with an expansion of annuals below 25m AHD.
- The northern and north-eastern foreshores remain devoid of vegetation, consistent with previous years.
- Reductions in vegetation cover of 10-20% were observed at numerous locations on the southern lakebed and around the southern lakebed islands. These declines are not limited to any particular elevation, and so are unlikely to be related to lake operations. Evidence from photo monitoring suggests that much of this reduction was due to a decline in the extent and condition of Noogoora burr. Declines in native perennials due to grazing and persistent dry conditions were also partly responsible for the reduction in cover.
- Overall vegetation cover on the lakeshore between 23 and 27m AHD declined by 9% from May 2018 to May 2019.
- Vegetation monitoring results from UAV imagery were presented in the Lake Victoria Annual Lakeshore Monitoring Report 2018-19, which was finalised in December 2019.

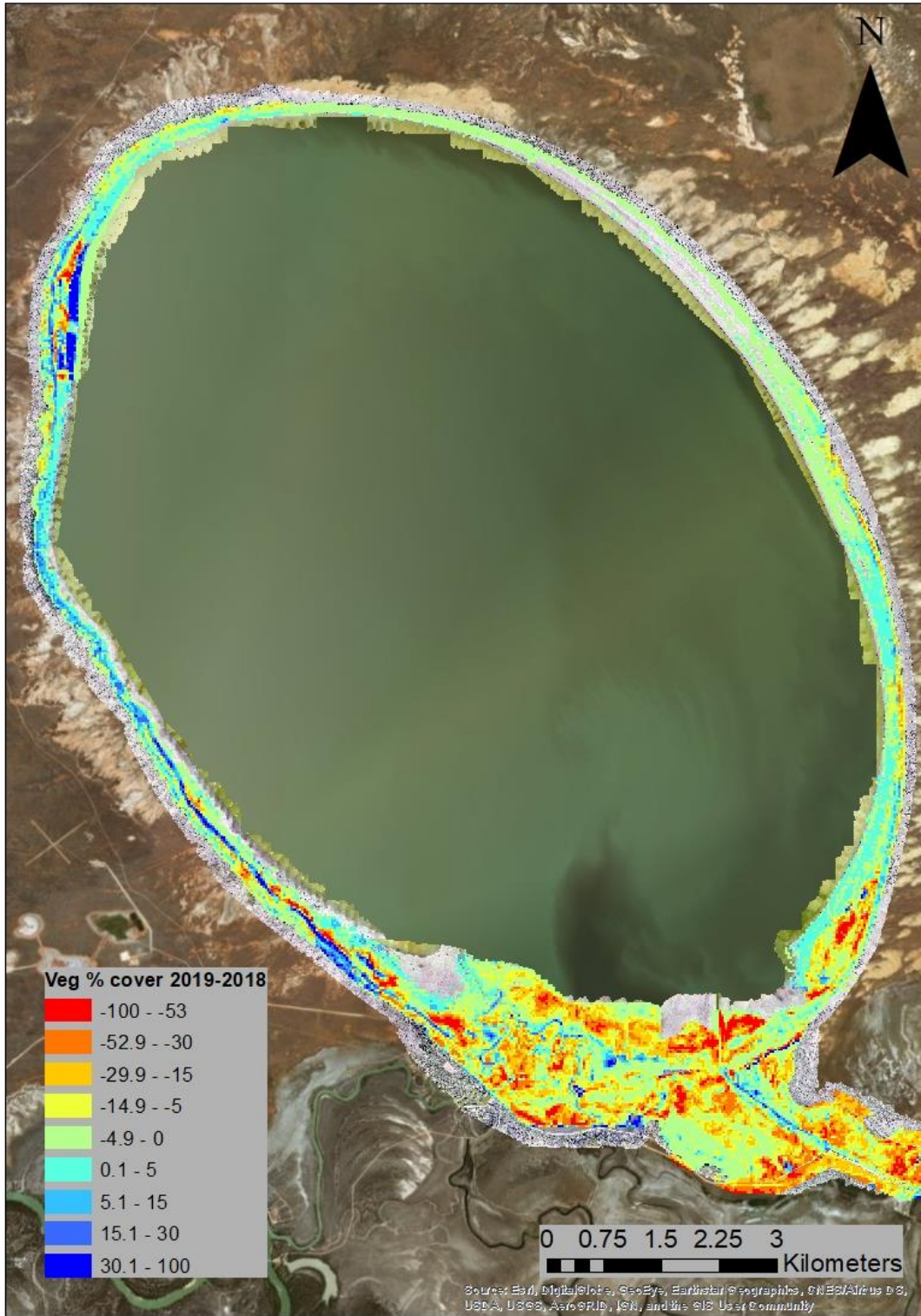


Figure 11 – Map showing changes in vegetation cover from May 2018 to May 2019, from 23 to 27m AHD. Areas showing an increase in cover are shaded blue, and areas showing a decrease in cover are shaded red.

Table 2 - Heat table for 2019, showing percent vegetation cover for each 0.5m elevation band per assessment area around the lake, between 23m and 27m AHD. Cells with a strike through show elevations likely to be water-affected at time of image capture, and grey cells indicate where the assessment area doesn't extend to that elevation. All area and elevation band means are **area-weighted**.

Elevation band (m AHD)	WESTERN BEACH	NOOLA BEACH	NULLA NORTHERN BEACH	NULLA SOUTHERN BEACH	TALGARRY WELLS	TALGARRY BEACH	TALGARRY BARRIER	SOUTH EASTERN BEACH	SNAKE ISLAND	SOUTHERN LAKEBED EAST	FRENCHMANS FLOODPLAIN EAST	SOUTHERN LAKEBED ISLANDS	SOUTHERN LAKEBED WEST	LAKEBED CHANNELS	FRENCHMANS FLOODPLAIN WEST	SOUTH WESTERN BEACH	Elevation Band Mean
26.5 – 27	85	62	1	0	36	36		44	70		82	96	52	76	83	53	61
26 – 26.5	77	43	0	0	14	18		23	44	100	58	85	70	82	77	53	52
25.5 – 26	71	38	0	0	4	14	66	50	39	91	69	85	73	81	73	64	51
25 – 25.5	54	21	0	0	0	13	46	42	37	97	66	76	53	73	79	52	58
24.5 – 25	43	18	0	0	0	6	33	37	9	71	72	86	57	51	60	43	35
24 – 24.5	26	12	0	0	1	3	14	18	10	58	90	89	51	25	48	7	39
23.5 – 24	4	32	0	0	1	1	15		49	22	63	84	5	11	63		15
23 – 23.5	3	19	1	0	0	0	6		76	7	45	72	7	18	24		5
Assessment Area Mean	56	28	0	0	6	12	14	40	40	31	72	85	36	30	77	54	

Weeds

- Limited weed control was conducted during the reporting period due to dry weather conditions across the landscape.
- The most prolific weed of the floodplain environment is the noogoora burr (*Xanthium occidentale*).
- Weed species treated in the reporting period include fleabane (*Erigeron bonariensis*), noogoora burr (*Xanthium strumarium*), paddy melon (*Cucumis myriocarpus*), common thornapple (*Datura stramonium*), Bathurst burr (*Xanthium spinosum*), horehound (*Marrubium vulgare*) and golden bamboo (*Phyllostachys aurea*).
- A total of 30,400 litres of mixed chemical was applied to weed species as part of SA Water weed treatment programs for the 2019 reporting period.

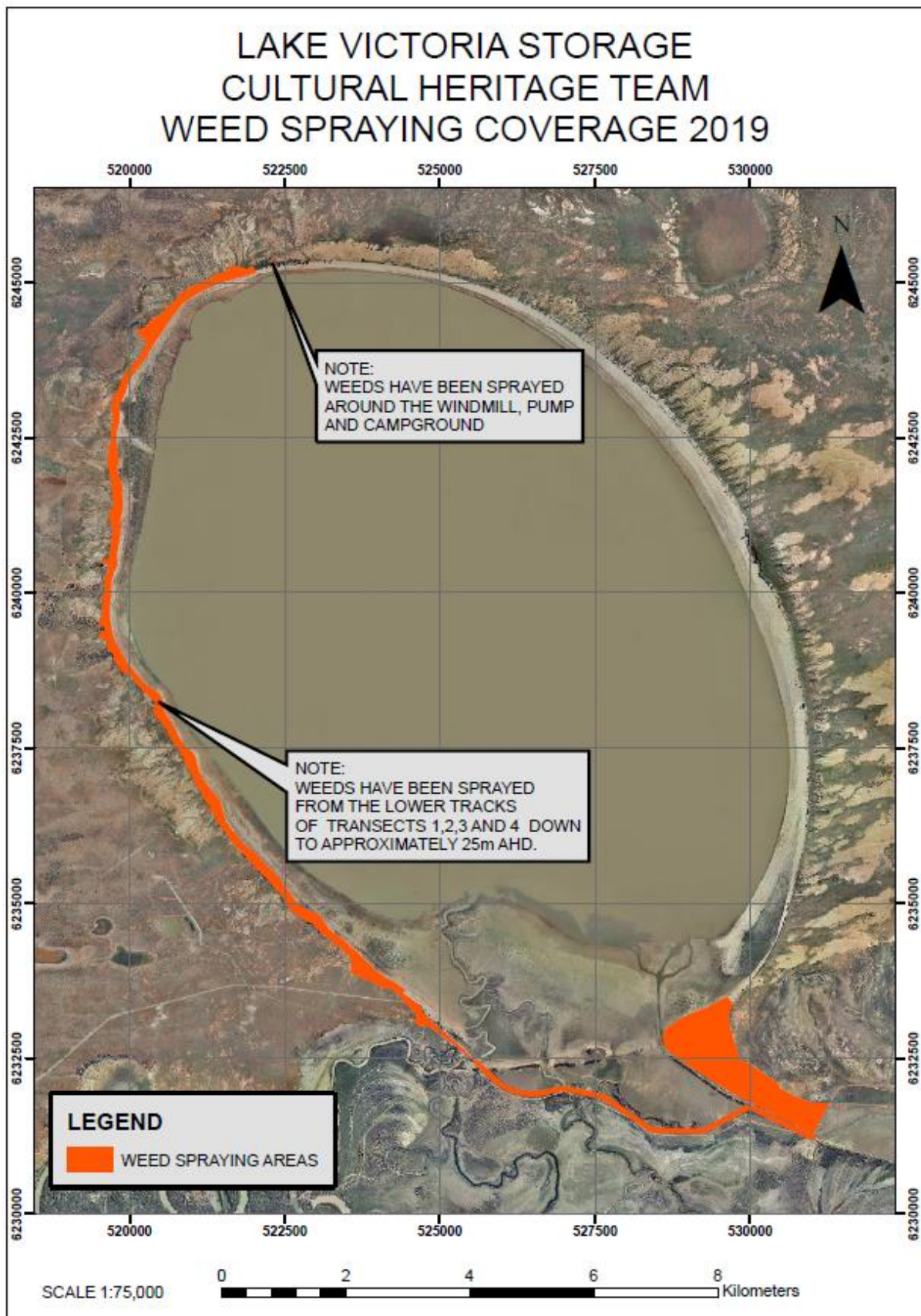


Figure 12 - Coverage of weed spraying activities undertaken by SA Water for 2019 reporting period.

1.1.15 Managing non-native fauna (Condition 37)

Rabbit control

- Rabbit numbers remained very low during the first few months of 2019 due to dry conditions.
- June 2019 saw a slight increase in rabbit activity after small rain events. Baiting increased during this time, specifically around the western side of the Lake on riparian zones 1 to 4.
- Spotlight transects showed little rabbit activity after a baiting program of almost 290kms of 1080 poison trail.
- By the end of the year rabbits were recorded to be at the lowest they have been in many years.

Pig control

- A pest animal contractor was engaged to deliver a feral pig program at Lake Victoria. A total of 24 feral pigs were removed from various locations during reporting period. The majority of sightings and trapping of feral pigs occurred in February and April 2019.
- Occasional feral pig sightings were noted at banks 4 and 5, Snake Island and throughout the riparian zones, however overall pig numbers remained low during 2019.

Fox control

- During the first 8 months of 2019 there was little fox activity however once Spring arrived baiting programs were implemented with a view to protect ground nesting birds and turtles.
- In September and October 150 bait stations were set up month around the entirety of the Lake. The small number of bait takes indicated that fox numbers were significantly low.

1.1.16 Water quality monitoring (Condition 38)

- Salinity, measured as electrical conductivity (EC), is measured daily (or continuously) at the Lake Victoria hydrographic stations (4260553 and 426502).
- The long-term data set indicates that salinity in the Lake and in the River Murray is generally lower now than in the late 1990s when the initial AHIP was granted and the new operating strategy developed.
- The reduction over time is due to the operations of the suite of salt interception schemes along the River Murray, improved irrigation and pastoralism practices and improved river and lake operations.
- The Lake salinity is still slightly higher than the nearest upstream River Murray location (Lock 9) indicating the higher saline groundwater, characteristic of the area, as it continues to enter the Lake.
- Salinity levels in Lake Victoria continue to follow the trend of lower EC from 2003 onwards into the reporting period.

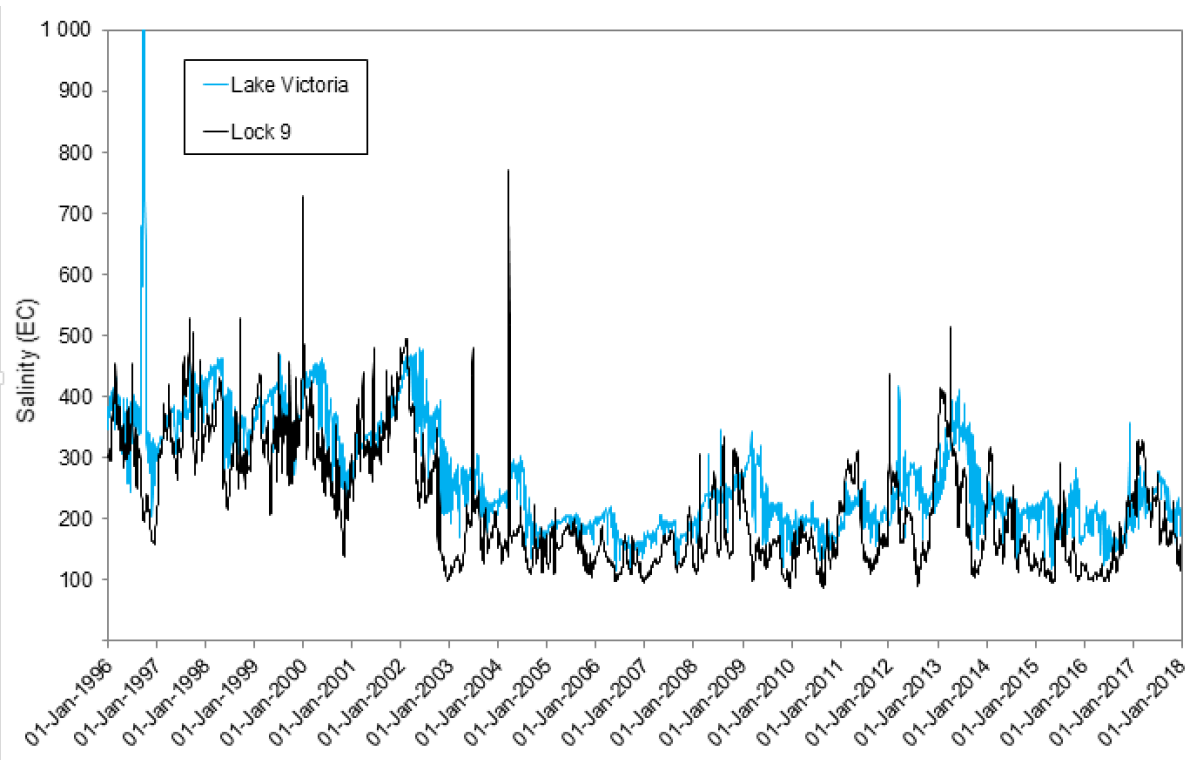


Figure 13 - Salinity levels in the River Murray at Lock 9 and in Lake Victoria since 1996 until present.

1.1.17 Lake Victoria Operating Strategy (LVOS) (Conditions 41-44)

- Lake Victoria was operated consistently with the Lake Victoria Operating Strategy during the reporting period.
- During the second half of the 2018-19 water year, lake levels remained well below the limits outlined in the LVOS for the end of February to the end of May.
- The Lake started refilling in May 2019. The Lake remained steady for a brief period in mid-June, then continued to fill. The storage then declined from the end of September as additional flow from tributaries receded due to dry conditions in spring.
- Storage levels during November and December 2019 were maintained due to ongoing bulk transfers from Hume Reservoir (including additional flows around the Choke using irrigation infrastructure) and from the delivery of IVT from the Goulburn and Murrumbidgee Valleys. Due to very high demands and losses and limited channel capacity during December the level in Lake Victoria began to fall away whilst additional releases were made to supply required flows to South Australia.
- The lake levels reached their lowest point of 22.13m AHD at the end of April and peaked at 26.23 m AHD on 20 October 2019 (Figure 14).

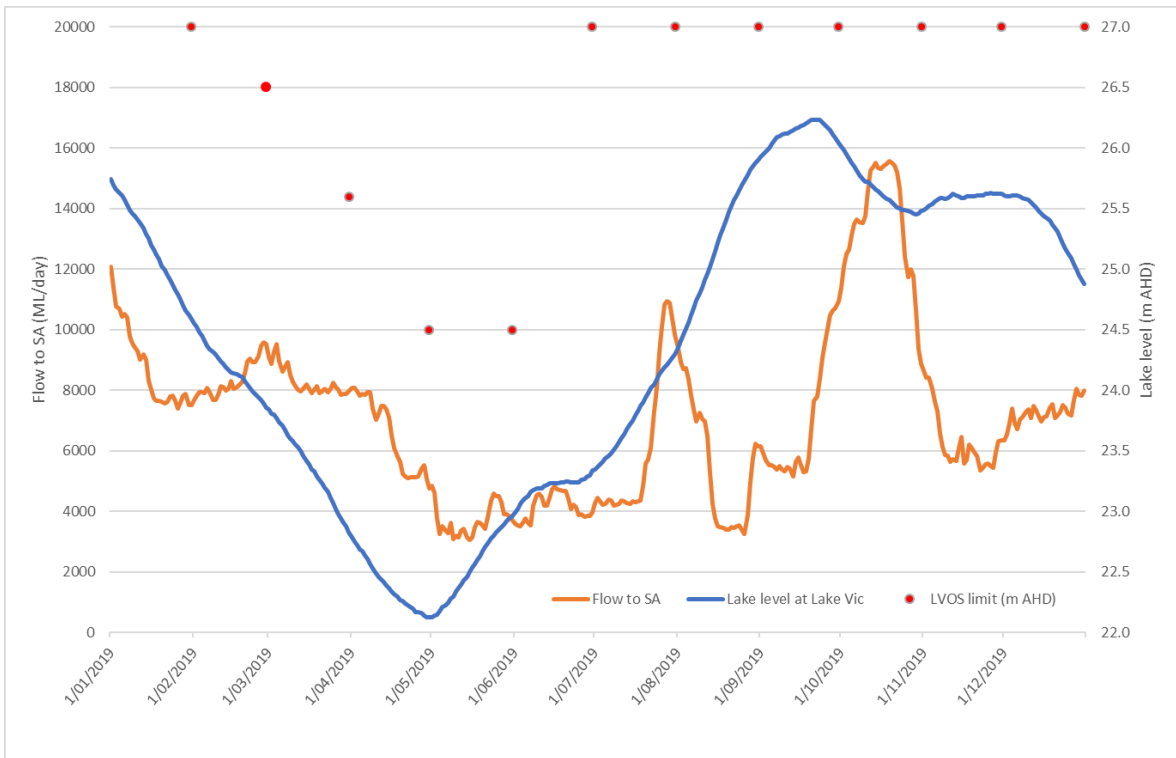


Figure 14 - Daily lake level at Lake Victoria storage in m AHD and flow to South Australia in megalitres per day for the reporting period (Source: MDBA).

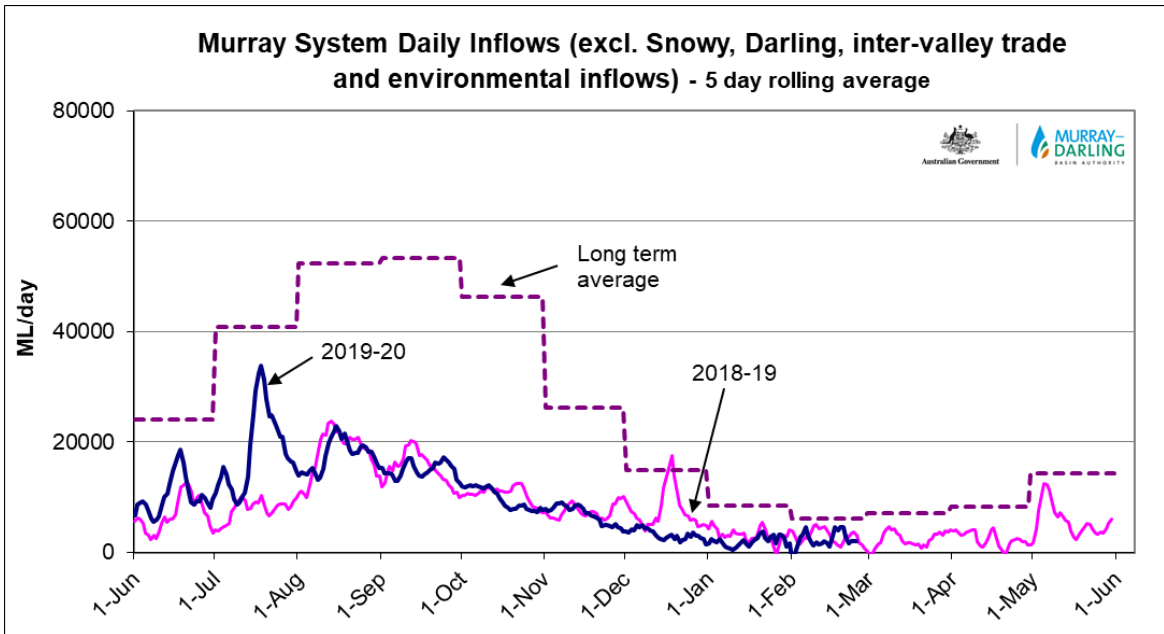


Figure 15 - Well-below average inflows in the Murray system between June and December 2018 (dark blue line) when compared to long-term average (dark purple line) (Source: MDBA).

1.2 Impact on areas outside the Lake (Conditions 49-54)

1.2.1 Adjacent landholders

- Lake Victoria Program staff continue to work with adjacent landholders in relation to facilitating access or where land management activities compliment or potentially impact neighbouring landholders.
- The MDBA has continued to implement the LVOS, which in turn contributes to reducing the potential impacts of saline groundwater on surrounding lands.
- An enduring agreement with landholders has not been resolved, this is a complex matter that the MDBA remains committed to meaningfully progressing and ultimately working towards a resolution with landholders.

1.2.2 Maintain awareness of regional planning processes (Condition 50)

- The MDBA has continued to support the Lake Victoria Working Group (LVWG) which consists of key stakeholders with links to region wide planning. The LVWG is tasked to negotiate the various regulations, policies and procedures relevant to the management of cultural heritage at the Lake. The LVWG discusses administrative and planning arrangements so that program partners maintain currency and compliance with the requirements of relevant regulations, policies and practices.

1.2.3 Groundwater monitoring (Condition 51)

- Water NSW monitors groundwater levels and salinity with a monitoring bore network located in the lakebed and across the floodplain (Figure 16). There are 70 active groundwater monitoring sites with a total of 90 pipes. The majority of the monitoring sites are nested; screening across aquifers at different depths. Most of the monitoring sites have their water levels logged continuously (82 actively logged sites) giving a detailed insight into aquifer responses to lake operations and climate.
- Groundwater levels in the vicinity of Lake Victoria and on adjacent land to the east and south continued to be monitored in 2019.
- Routine groundwater monitoring continued for the bores in the lakebed on the shoreline and in the wider Lake Victoria area.

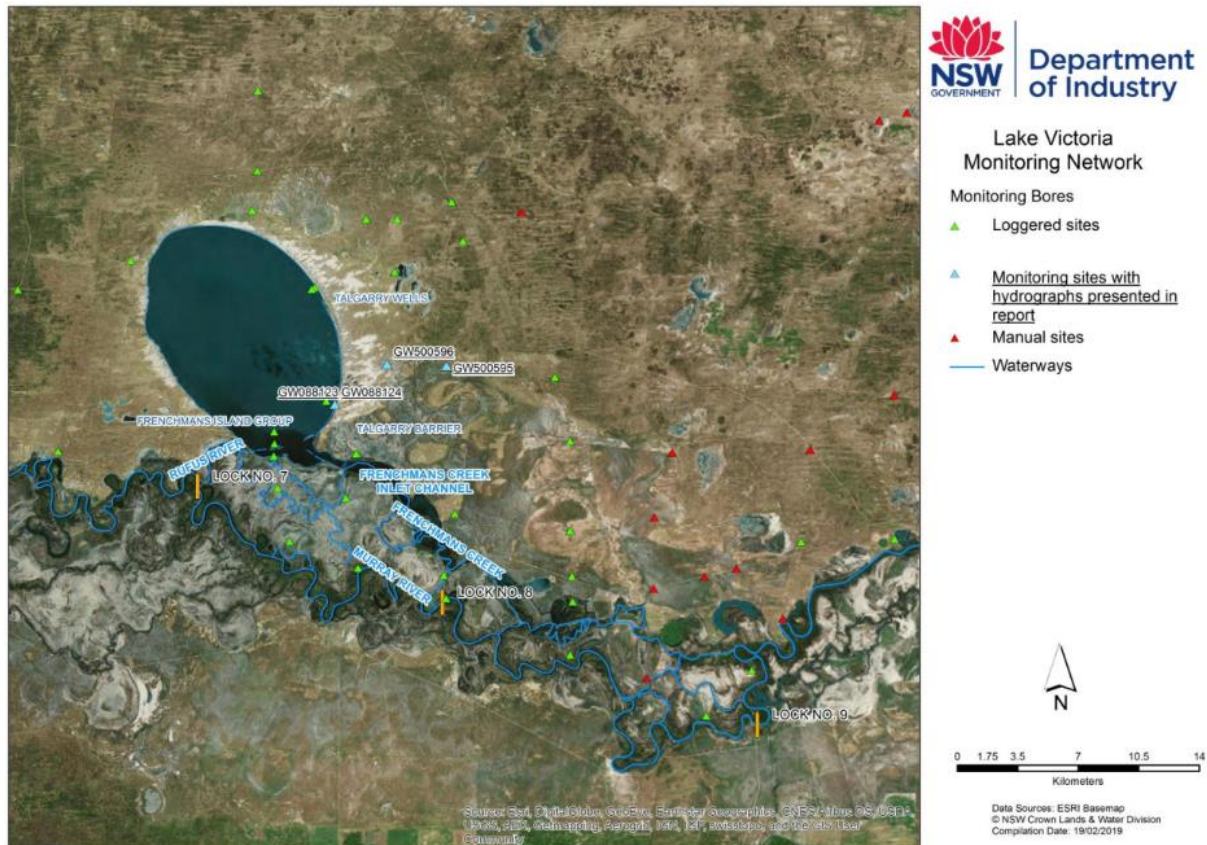


Figure 16 - Lake Victoria groundwater monitoring network (Water NSW).

Groundwater Level

- Groundwater levels have been compensated to allow comparison across the floodplain where the salinity ranges from hypersaline to fresh. Lowest lake water levels were observed on 4 May 2019 at 22.18m AHD.
- The potentiometric surface map for the shallow aquifer in May 2019 could suggest that the Lake’s capacity to act as a hydraulic barrier (like a plug stopping groundwater flow) has weakened with lower lake levels and shorter filling times in the current drought. The groundwater contours have lowered in elevation, and the groundwater mound has contracted towards the Lake. The difference between the littoral zone groundwater levels and the floodplain groundwater levels are also less than previous years and are lower in elevation by approximately 1m AHD.
- The groundwater contours and littoral zone being lower in 2019 indicated there is reduced potential salinisation impacts to the floodplain for the year, particularly with deeper groundwater levels below the ground surface (Figure 18).
- Water levels are from 2.21 to 5.25m below ground surface outside the extent of surface water area of the Lake for May 2019, within approximately 2.5km of the eastern Lake shore. The water table is shallow as a result of the natural groundwater discharge location and the Lake’s effect on the groundwater system.

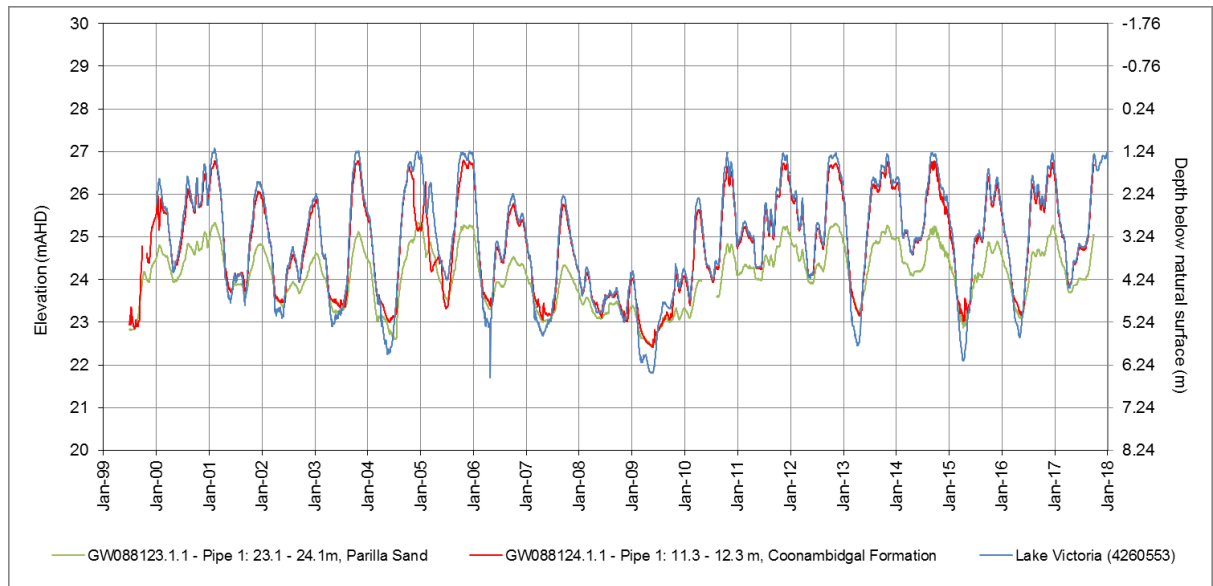


Figure 17 - Hydrographs for monitoring sites GW088123 and GW088124 and Lake Victoria lake levels (Water NSW).

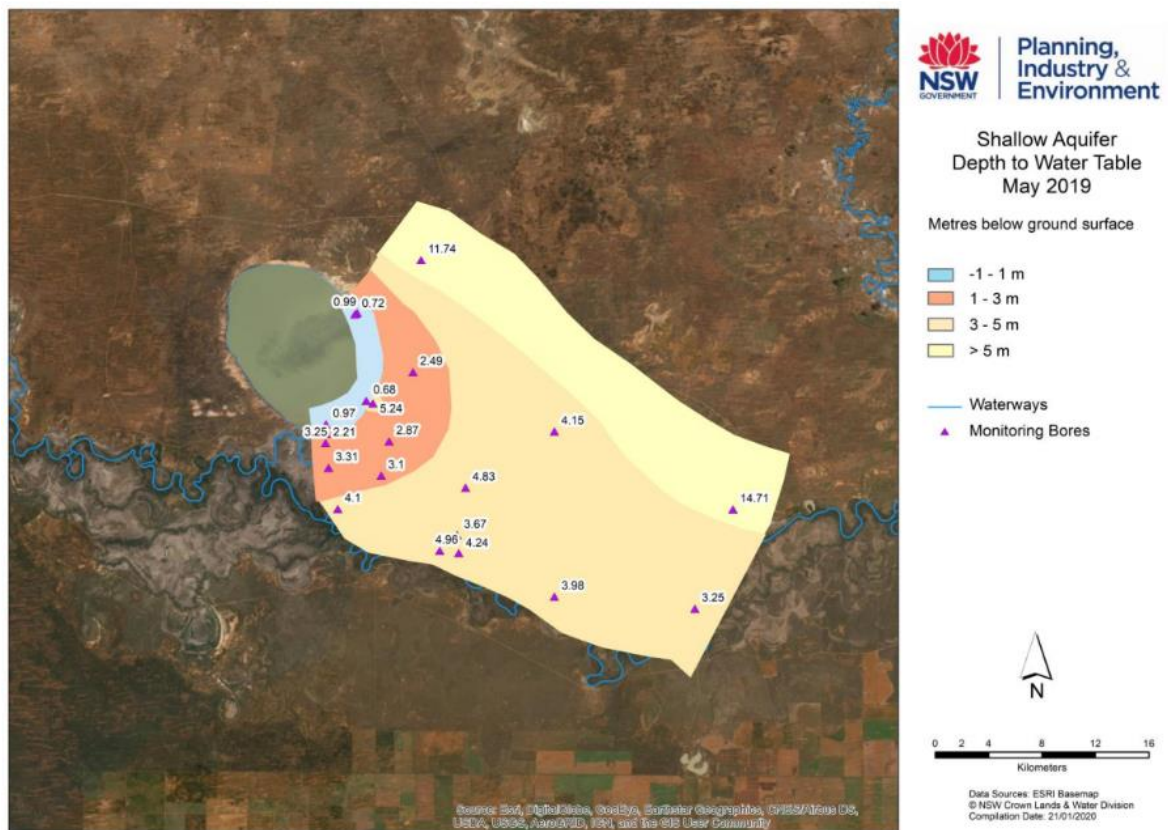


Figure 18 – Shallow aquifer depth to water table on 4 May 2019.

Groundwater Quality

- The electrical conductivity in a nested monitoring site screening the Coonambidgal Formation and the Parilla Sand beneath the littoral zone of the Lake are shown in Figure 19. The deeper Parilla Sand unit has hypersaline groundwater consistently over the period of record and measured at 61,600 $\mu\text{S}/\text{cm}$ for EC in September 2019.

- The shallow Coonambidgal Formation groundwater is less saline, with an EC reading of 27,100 $\mu\text{S}/\text{cm}$ in 2019.
- Figure 20 shows the electrical conductivity across the floodplain. Lake Victoria surface water was fresh with an EC average of 142 $\mu\text{S}/\text{cm}$ for 2019.

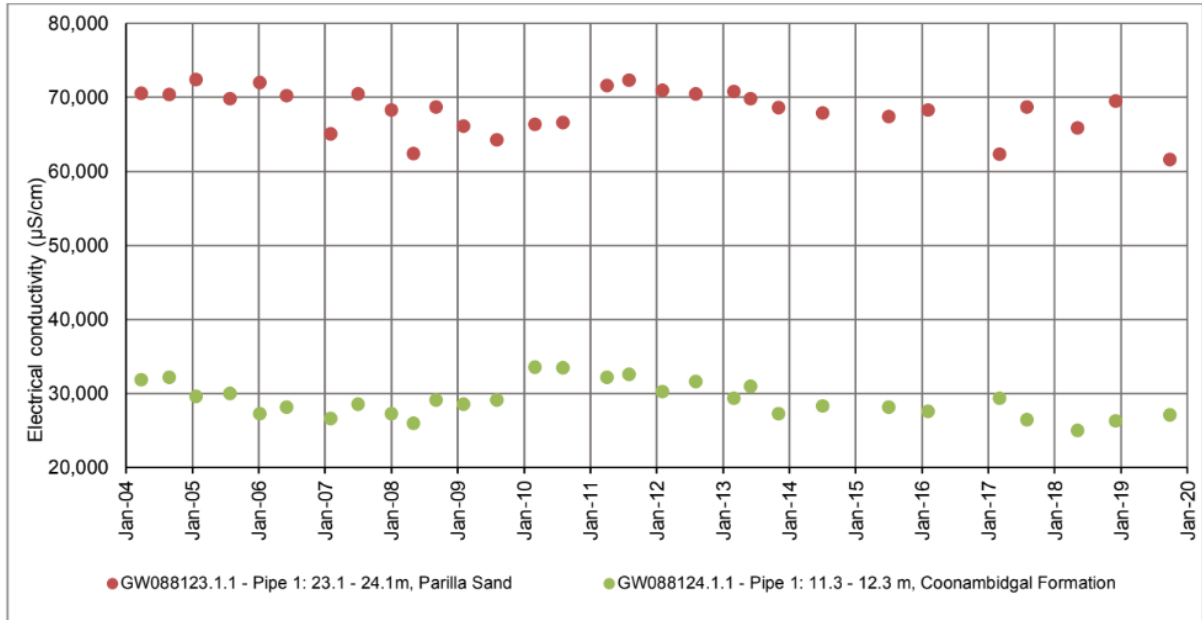


Figure 19 - Electrical conductivity at monitoring sites GW088124 (Coonambidgal Formation) and GW088123 (Parilla Sands).

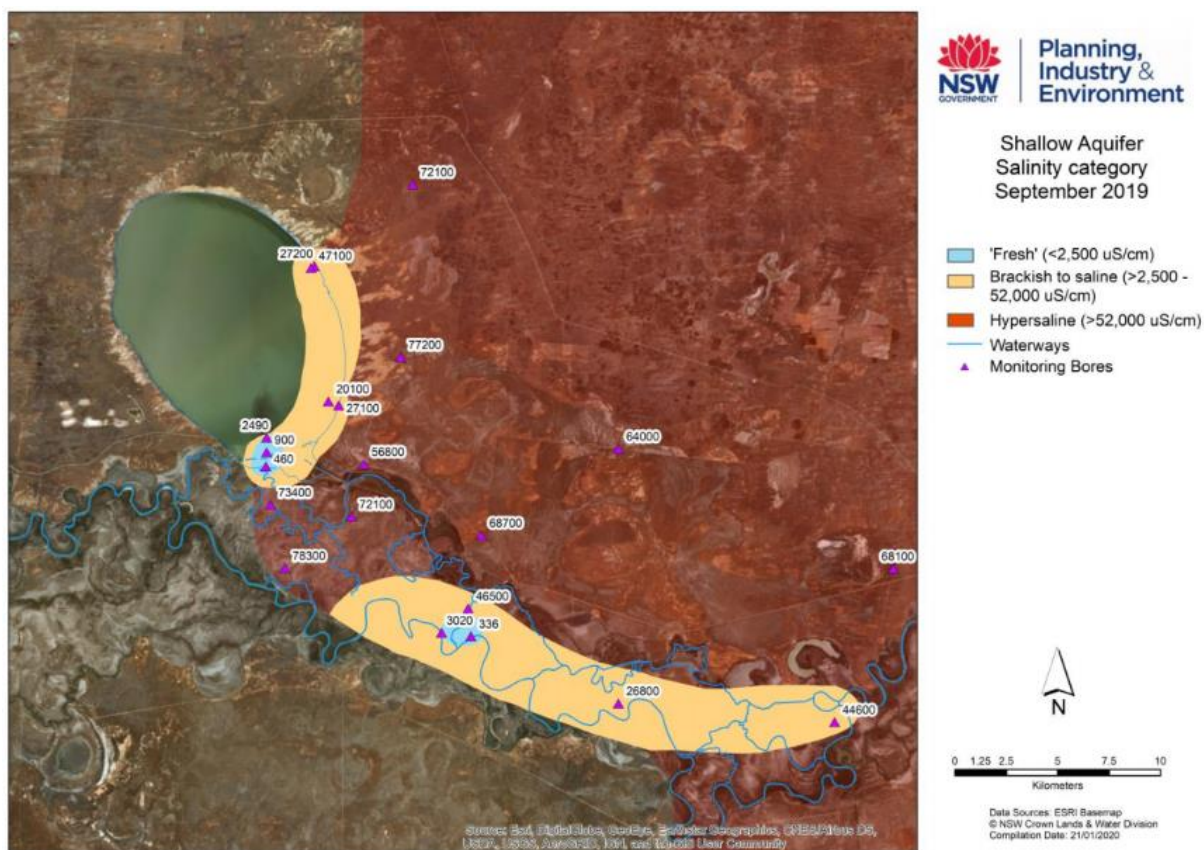


Figure 20 – Electrical conductivity across the floodplain in the shallow aquifer.

1.2.4 Cultural and natural heritage inventory (Conditions 52, 54, 55 & 72)

- In 2002, a cultural heritage inventory of the Lake Victoria Rangelands was conducted by Hope *et al.* Aboriginal heritage material, predominantly shell, hearths, and stone artefacts, were found on all landform types on the southern floodplain. Burial sites were found in one location, a red sandy raised area.
- Hope *et al.* (2002) states that these burial sites are not subject to any known salinity problem and advises that salinity is not a predominant threat to other cultural heritage items surveyed except where salinity contributes to erosion of clay sediments.

1.2.5 Impact of salinisation on fauna and faunal habitat (Conditions 52, 54 & 72)

- The LVOS continues to be implemented to contribute to mitigating the potential impacts on fauna and faunal habitat in the AHIP area through land salinisation.
- Vegetation monitoring has indicated that most of the vegetation decline occurred prior to the AHIP being issued. In addition, groundwater levels continue to generally decline in areas further from the Lake, reducing the risk of further damage to critical habitat and threatened species.

- A full list of the threatened species assessment for species in the AHIP, salt-affected lands and “Big Lake” areas continue to remain available in the ‘Threatened Species at Lake Victoria Report’ (MDBA 2017b).

1.3 Damage or discovery of Aboriginal objects not covered by the AHIP (Conditions 53 & 57)

- As per 1.1.5, an AHIP for conducting radio carbon dating on a loose tooth and shell midden found in the hardpan layer of the Nulla lunette was granted by DPIE BCD.
- In August 2019, NGH Environmental and members from the BMEC took samples from the shell midden and a loose tooth from the human burial. The tooth was too far decayed however the shell midden sample ages range from 21,950 to 29,500 cal BP.
- As part of the survey works conducted for the new AHIP application, new discoveries were made which included:
 - 800 x new artefacts
 - 300 x shell middens
 - 5 x scar trees
 - 4 x new burials
 - 1 x silcrete quarry
 - Megafauna remains
 - 1 x sharks tooth
- Site cards for these items are being developed and will be submitted to both ACID and AHIMS once site cards are completed.

1.4 Administrative, General and Notification Conditions

1.4.1 Commencement, duration, and revocation of the AHIP (Conditions 1-2 & 64)

- The current **variation of the AHIP commenced on 4 August 2015 and expires on 4 August 2020.**
- **There is an ongoing assessment of the operation of the Lake in line with the Conditions of the AHIP** through measures including the Annual Compliance Report, the Lake Victoria CLPoM, LVAC meetings, the SRP and research projects. This assessment will inform the application for the new Lake Victoria and surrounds AHIP in 2020.

1.4.2 Proposed works (Condition 3)

- During the reporting period, the Lake was operated in accordance with the LVOS and proposed works agreed to in the AHIP (see page 28).

1.4.3 The MDBA to be responsible for the compliance with the AHIP (Condition 4)

- As the holder of the AHIP, the MDBA takes responsibility for compliance with the AHIP.

- Before commencing work within the AHIP, all persons are made aware of the AHIP via a site induction which includes being briefed by SA Water on the significance and sensitivities of undertaking fieldwork at Lake Victoria.
- The SA Water Cultural Heritage Team Leader oversees and manages all persons involved in actions or works within the AHIP area.
- For the 2019 reporting period, the MDBA is not aware, to the best of its knowledge, of any persons involved in works that have not complied with the AHIP.

1.4.4 Project manager to oversee the actions relating to this AHIP (Conditions 5-7)

- In accordance with Conditions 5, 6 and 7 of the AHIP, Mr Andrew Reynolds, Executive Director River Management, was responsible for overseeing, on behalf of the Authority, all the actions relating to the AHIP during 2019.
- Ongoing project management was the responsibility of the Director Riparian Program, initially Mr Digby Jacobs, followed by Ms Natalie Dando from May 2019.

1.4.5 Annual reporting (Conditions 45-47)

- The final draft of the '2018 Lake Victoria Annual Compliance Report' was distributed to LVAC in early April 2019 and subsequently submitted to the Chief Executive of DPIE BCD on the 30th April 2019.
- Hard copies of the final approved Annual Report were sent to the Australian Institute of Aboriginal and Torres Strait Islander Studies, Canberra and the Australia Museum, Sydney.
- The '2019 Lake Victoria Annual Report' was distributed to LVAC on the 9th March 2020, and subsequently submitted to the Chief Executive of DPIE BCD on the 25th March 2020.

1.4.6 Indemnity and release (Conditions 58-59)

- In 2019, the MDBA continued to indemnify and release parties named in Conditions 58 and 59 of the AHIP in the absence of any wilful misconduct of negligence.

1.5 Conditions applying to the Section 87 Permit to Salvage

1.5.1 Salvage of Aboriginal objects under this AHIP (Conditions 8, 10-11, 12, 56, 57 & 612, 67-75)

- All salvage works are permissible under Section E under the direct supervision of the Cultural Heritage Team Leader as a representative of the MDBA, and in accordance with Section 87 Permit and the Lake Victoria CLPoM.
- See 1.5.8 for Aboriginal objects salvaged during this reporting period.

1.5.2 Access for officers of OEH (Conditions 65 & 66)

- Following site inductions by managing agencies, DPIE BCD (formerly OEH) officers have full access to all of the areas covered by this AHIP.
- Officers from DPIE BCD, including the Senior Archaeologist, took part in several field trips with other agency staff and members of the SRP to various locations at Lake Victoria including Nulla lunette, eastern lakeshore and western beach.

1.5.3 Notice to cease or restrict salvage activities (Condition 64)

- A notice to cease or revoke this permit was not received from DPIE BCD (formerly OEH) Chief Executive in 2019.

1.5.4 Written notice and notification of fieldwork (Condition 60, 70)

- The relevant Archaeologist of DPIE BCD and the BMEC were advised and notified of all routine works, field surveys and research activities where these relate to the AHIP conditions through consultation at the LVWG and LVAC meetings as well as site visits, email and teleconferences.
- Requirements to provide written notice to DPIE BCD were complied with using the communication methods listed in Condition 60.

1.5.5 Obligations under other legislation (Condition 71)

- Authorisation and approvals under all relevant legislation were sought prior to undertaking the works of this AHIP.

1.5.6 Suitably skilled staff (Conditions 5, 62)

- All agents, employees, contractors and staff of the MDBA who are engaged to perform work under this AHIP are suitably skilled and possess appropriate expertise for the work they conduct. All activities have adequate skilled supervision to allow the work to be conducted in an appropriate professional manner.

1.5.7 Variation to conditions (Condition 63)

- The Conditions of the AHIP were last reviewed in 2015. The new AHIP containing the revised Conditions was issued in August 2015 following approval from the OEH (now DPIE BCD) Chief Executive.

1.5.8 Recovery and care of Aboriginal objects (Conditions 73–75, 77–80)

- A shark's tooth was located on the western 'cliffed' area of Lake Victoria as part of the wider AHIP survey inspections works undertaken. The object was in the vicinity of some grinding implements. There may be several reasons why, and how, the shark tooth arrived at the location, however, it was determined most likely through human deposition.

- The object was recorded into the AHIMS database and following discussion with Barkindji-Maraura Elders representatives on site it was decided that this object should be collected and taken to the BMEC Keeping Place, SA Water Depot.
- Authority for this was provided by John Gilding DPIE BCD Archaeologist South West under Section 87 of the *National Parks & Wildlife Act 1974*.
- Individual 'Care and Control' permits issued by DPIE BCD are in force. One permit pertains to 'SA Water Depot, Rufus River Road' (which includes the early Kefous and Hope collections) and the other to 'The Keeping Place, Rufus River Road'. All objects in the existing inventory have been collected in compliance with the 'Community Collection' rule.

2. Lake Victoria Advisory Committee Attendees 2019

Member name	Representative group/organisation
Jane Lennon	LVAC Chair
Neale Draper	LVAC Deputy Chair
Digby Jacobs	MDBA – former LVWG Chair and Riparian Director
Natalie Dando	MDBA – LVWG Chair and Riparian Director
Emma Zouch	MDBA – Acting LVWG Chair and Riparian Director
Brione Kraven	MDBA
Olin Cox	MDBA
Leigh Pyke	NSW DPIE Water
Shaun Richardson	NSW DPIE Water
Aish Jacyna	NSW DPIE Water
Peter Teasdale	NSW DPIE Water
Harvey Johnson	Department Premier & Cabinet – Heritage Division
Darryl Pappin	Department Premier & Cabinet – Heritage Division
Graeme Enders	NSW DPIE BCD
Karin Pappiosion	NSW DPIE BCD
Andrew Fisher	NSW DPIE BCD
John Gilding	NSW DPIE BCD
David Chudleigh	SA Water
Baden Moore	SA Water
Tim Kruger	SA Water
Garry Fyfe	SA Water
Clay Smith	SA Water
Kingsley Abdulla	Maraura – BMEC Chair
Gary Abdulla Senior	Maraura – BMEC

Member name	Representative group/organisation
Roland Smith Senior	Barkindji – BMEC Deputy Chair
Gary Abdulla Junior	Maraura – BMEC
Dale Abdulla	Maraura – BMEC
Marlon Abdulla	Maraura – BMEC
Shakira Abdulla	Maraura – BMEC
Leonie Johnson	Barkindji – BMEC
Ricky Handy	Barkindji – BMEC
Dakota Johnson	Barkindji – BMEC
Claude Mitchell	Barkindji – BMEC
Grace Smith	Barkindji – BMEC
Dawn Smith	Barkindji – BMEC
Thomas Wilson	Maraura – BMEC
Nicholas Smith	Barkindji – BMEC
Robyn Lawson	Barkindji – BMEC
Lesley Gray	Maraura – BMEC
Lillian Charles	Maraura – BMEC
Warren Duncan	Landholder Representative
Stuart Duncan	Observer
Eric Thomas	Observer
Ken Warren	Observer
Emily Dillon	NGH Environmental

3. References

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