

NAMP TECHNICAL COMMITTEE ANNUAL MEETING RECORD OF MEETING – DRAFT

Tuesday 23rd – Wednesday 24th August 2022

In attendance:

- **ACDP** –Tristan Reid (proxy), Debbie Eagles (virtual)
- **AHA** – Emily Sears (Chair), Bronwyn Hendry
- **DAWE** – Adam Robinson
- **LiveCorp** – Katie Hallatt (proxy)
- **NAQS** – Cass Wittwer (virtual), Charlotte Burgoyne, Teagan Fitzwater, Luke Watson, Anna Genge
- **NSW** – Deb Finlaison, Peter Kirkland, Birgit Loecker (virtual)
- **NT** – Vidya Bhardwaj, Lorna Melville (supporting observer)
- **Qld** – Leanne Nelson (virtual – in part)
- **SA** – Celia Dickason
- **WA** – Marion Seymour
- **Reference entomology** – Glenn Bellis

Apologies:

- Bruce Hill (Qld), Debra Grull (Tas.), Berwyn Squire (Vic.), Wayne Collier (LiveCorp), Mikhaila Nye (AHA)

Tuesday 23 August 2022 9:30 pm – 4:30 pm ACST

1.1 Setting the scene – E Sears (AHA)

- E Sears provided background to the committee on the NAMP and highlights from 2021-22, including Exercise Tiliqua. The exercise report is available from AHA.
- Spoke to the Terms of Reference for the NAMP Technical Committee noting an additional ToR for the technical committee to provide scientific advice to CVOs on arbovirus matters as the need arose.
- Noted that the list of membership categories is contained within the Business Plan.

Action/s

1. **AHA to review the wording of the new NAMP TC ToR to clarify non-NAMP arboviruses.**

1.2 Progress on 2021 TC meeting actions – E Sears (AHA)

- E Sears spoke to the paper.
- Action 6, to resolve interactive map duplication issue, is in progress with updates planned for the system.
- Action 9, for A Robinson to review the EHDV paper, remains in progress.
- Action 11, for DAFF to discuss internally if the AHSV project data will be housed in NAMP-*info*, was marked complete. NAQS to confirm where the AHS data sits and number of sites.
- Action 15, use of propylene glycol for sending and storing samples for longer periods of time, is in progress, with work underway to determine the suitability for molecular analysis.
- Action 16, to update the Operations Plan, has been delayed and will be addressed under Agenda Item 7.2.

- Action 19, to include a brief on the additional ongoing site near Esperance, is complete. AHA to confirm the site code with WA.
- All other actions are complete.

Conclusion/s

Update on action items accepted as written.

Action/s

2. AHA to keep Technical Committee informed the duplication issue with the interactive map and database update.
3. A Robinson to review the EHDV paper (continued from 2021 actions).
4. NAQS to confirm where the AHS data is stored and how many sites.
5. G Bellis to advise if samples submersed for >3 months in propylene glycol are suitable for molecular analysis.
6. AHA to advise WA of the site code for Esperance.

2.1 DAFF NAMP and Australian livestock market access – A Robinson (DAFF)

- A Robinson provided a presentation to the committee.
- Some markets are less sensitive and will access NAMP online materials without as much scrutiny. NAMP is accepted by most trading partners.
- China has the highest requirements for proving BTV free confidence. Requirements are not necessarily science-based, and can be politically motivated.
- The NAMP map is provided to almost all countries seeking to import Australian livestock. Most countries accept it without further negotiation, which allows OIE/WOAH conditions to be utilised. China and the EU are the exceptions. The EU currently rejects the NAMP, although changes to the WOAH Terrestrial Code mean that it is now likely compliant.
- Indonesia and Vietnam are large importers of feeder/slaughter cattle and rely on the NAMP. NAMP is specifically referenced within their protocol.
- Current Australian government has indicated that as part of the next election cycle they would look to phase out live sheep exports. There are currently a number niche markets for breeder sheep.
- NAMP related concerns for trade to China, EU and Turkey include:
 - China: change in GACC staff/change in interpretation, political pressure, conservatism
 - EU: desire from some small sections of the livestock exporting community to gain access, BTV was not previously accepted as WOAH compliant.
 - Turkey: flagged by industry as a future market for sheep. Invited to Australia pre-COVID to look at the NAMP, economy has since deteriorated and now unlikely to trade.
- Usually, animals that have been out of the BTV zone for 60 days are extremely unlikely to be viraemic.

Conclusion/s

The update from the Australian Government report was accepted.

Action/s

7. A Robinson to send to WA a list of countries who test for BTV pre-export.

3.1 NT virology and entomology – V Bhardwaj (NT) & L Watson (NAQS)

- V Bhardwaj and L Watson spoke to the papers provided.

- Noted impacts of staff changes, JEV response and fungal contamination impacting both the virology and entomology laboratories.
- No seroconversions outside of BTV zone and no new isolates identified. BTV 1 and 16 were the predominate serotypes. One BEF seroconversion in BEF-free area.
- No exotic vector species were identified, and no vector species were detected outside the BTV zone.
- Noted that the use of PCR's is expected to increase and EHD testing is also undertaken at the NT lab.

Conclusion/s

The NAMP Technical Committee noted the virology and entomology report for the NT for the 2021–2022 arbovirus season.

Action/s

8. NT to continue backlogged testing and identification and advise AHA of finalised monitoring data for the season.

3.2 WA virology and entomology – M Seymour (WA) & A Genge (NAQS)

- M Seymour and A Genge spoke to the papers provided.
- A focus of monitoring had been on the boundary of the BTV zone, with no changes to the zone this season in WA.
- Esperance site has been established this year.
- Main serotypes detected during the season were BTV 1 and 16. BTV 23 was detected at Kalumburu (NAQS managed), which is the first detection of this serotype since 1989. Expect this is a novel incursion, and shows the importance of the Kalumburu site.
- Noted decreased numbers of key Culicoides trapped during the 2021-22 season compared with the prior seasons. A *C. actoni* specimen detected at Glenflorie station (Pilbara), which is the most southern recorded to date. This this was most likely to be a blow in, but more trapping collections have been received from this site and are pending examination.
- Identified that the NAMP management report requires updating to reflect the WA entomology data.

Conclusion/s

The NAMP Technical Committee noted the virology and entomology report for WA for the 2021–2022 arbovirus season.

Action/s

9. WA to update NAMP Annual Wiki report to reflect entomology results.

3.2 Qld virology and entomology – L Nelson (Qld)

- L Nelson and E Sears spoke to the paper provided.
- Discussion on the limitations of looking at trend in trap count numbers noting significant variations due to within site factors such as wind, light and proximity to cattle.
- During the season serotypes BTV 1, 16 and 21 were predominate, with a detection of BTV 15 also being detected at the Cooktown sentinel site.
- Qld sought endorsement that an ongoing additional site be added to the budget at the University of Queensland, Gatton, which was supported by the committee.
- The committee noted that having a Qld representative as a proxy to discuss the virology findings in additional detail would have been beneficial.

Conclusion/s

The NAMP Technical Committee noted the virology and entomology report for Qld for the 2021–2022 arbovirus season and supported the additional site at Gatton.

Action/s

10. AHA to update budget and monitoring plan to include the Gatton site.

3.4 NAQS virology and entomology – C Wittwer (NAQS)

- C Wittwer spoke to the paper provided.
- Noted that outbreaks of ASF and COVID have prevented offshore samples for the season.
- Light traps were set at each of the 5 NAQS sentinel herds, as well as sites on the Tiwi Islands and Cobourg Peninsula.
- Detection of BTV at Gunbalanya is likely due to maternal antibodies, as the results initially showed 14/15 seropositive, then 0/8 seropositive during final sampling.
- Discussed challenges in maintaining the Kalumburu herd, with management of the herd being undertaken by volunteers and the risk of the herd collapsing. Noted the value and importance of the herd as reflected through the recent BTV 23 detection, which was not detected at any other sites.

Conclusion/s

The NAMP Technical Committee noted the virology and entomology report for NAQS for the 2021–2022 arbovirus season.

Action/s

Nil

3.5 NSW virology and entomology – D Finlaison & B Loecker (NSW)

- D Finlaison and B Loecker spoke to the paper provided.
- Noted significant rainfall and flooding events and the extensive BTV transmission, reaching prior western limits, with the first detection of BTV in Mudgee in late April (suspected to have occurred earlier). Transmission was detected down to Camden in the south.
- BTV 1, 16 and 21 were the main serotypes identified, with the first detection of BTV 15 in NSW occurring during the season. Retrospective testing for BTV 15 was undertaken in northern NSW herds. Noted that further understanding of the molecular epidemiology and pathways through Qld and NSW would be valuable to understand the transmission.
- Noted that additional monitoring near Tamworth would help to support trade and market access, however the wet weather is impacting this.
- Trapping collections were affected greatly by the wet weather and flooding events. Despite this, >200,000 Culicoides specimens were collected during the season, however species diversity has decreased. *C. brevitarsis* was the main species detected. Some new species detected that weren't detected in prior seasons.

Conclusion/s

The NAMP Technical Committee noted the virology and entomology report for NSW for the 2021–2022 arbovirus season.

Action/s

11. NSW and Qld to discuss the transmission of BTV15 during the 2021-22 season, and testing protocols.

3.6 Vic virology and entomology

- E Sears spoke to the paper provided on behalf of the Victorian representative.
- Noted that Vic reported that one animal had a suspect Simbu result at the follow up bleed. Discussion that any suspect results should be appropriately followed up and not entered into the system until this has occurred in align with the in the Operations Plan. It was noted that the north American market is sensitive to Simbu.
- BEF was detected with clinical signs on four cattle properties in northeast Victoria in March 2022.
- Some underactivity with one trap not collected. No *Culicoides* sp. known to be vectors were detected at any of the sites. Species detected were as expected from previous years, except for the detection of *C. williwilli* (V065 and V066).
- The committee discussed the need for suspect Simbu results to be reported.
- The committee noted that having a Vic representative as a proxy to discuss the aberrant finding in additional detail would have been beneficial.

Conclusion/s

The NAMP Technical Committee noted the virology and entomology report for Vic for the 2021–2022 arbovirus season. The Committee requested that the suspect Simbu result be removed from the database until it had been adequately followed up.

Action/s

12. AHA to follow up with Victoria on the status of the suspect Simbu result, removing the record from the database until it has been resolved.

3.6 SA virology and entomology – C Dickason (SA)

- C Dickason spoke to the paper provided.
- Discussion on any expected time period following detection of *C. brevitarsis* to when virus activity may be expected. While there is no definitive answer, the importance of monitoring cattle movements into the area from a BTV zone was noted.

Conclusion/s

The NAMP Technical Committee noted the virology and entomology report for SA for the 2021–2022 arbovirus season.

Action/s

Nil

3.8 Tas virology and entomology

- E Sears spoke to the paper provided on behalf of the Tasmanian representative.
- Noted that nothing unusual was detected.

Conclusion/s

The NAMP Technical Committee noted the virology and entomology report for Tas for the 2021–2022 arbovirus season.

Action/s

Nil

3.9 ACDP virology – D Eagles and T Reid

- D Eagles spoke to the paper provided.
 - Serotypes detected in Qld were predominantly BTV 1 and 16, with some detections of BTV 15 and 21. The main genotype from sequencing was Australia A. BTV 15 was detected at Cooktown and Hervey Range. Intermittent low results of BTV 4 have occurred but with minor reactions for serology only.
 - Serotypes detected in WA were BTV 1, 16, 7 and 23. BTV23 was detected by VP2 sequencing from a single sample collected at Kalumburu in October 21. The sequence showed significant variability to one previously seen and is suggestive of a novel incursion. Isolation has not been successful, looking at the use of MyBait whole genome enrichment. BTV 7 was also identified in a number of samples at Kalumburu through VP2 sequencing. No concurrent serological evidence of seroconversion to BTV 7 in the herd in the SNT. Noted the importance of Kalumburu in early detection.
- T Reid provided an update on whole genome sequencing (WGS) activities.
 - 10 segments in BTV genome, currently only looking at 2 segments. If only looking at part of the serotype, it could be misleading that they are related (i.e. might be the same serotype but significant difference between genomes & unrelated).
 - Currently working on characterisation of genomes. The program being used assigns isolates into clusters using jmer-based investigations of nucleotide sequence variability. Nomenclature developed to classify BTV isolates based on time/place. A limitation of the approach is the requirement for high titre isolates, meaning it cannot currently be applied to field samples. Results are examined in Nexstrain.
 - Validation of this methodology is ongoing. Details of methods will be provided to NAMP, as will a future manuscript for review. Ideally once the work is complete, NAMP stakeholders would be able to log in and view genomic information.

Conclusion/s

The NAMP Technical Committee noted the report from ACDP for the 2021–2022 arbovirus season.

Action/s

Nil

3.10 Reference entomology – G Bellis

- G Bellis spoke to the paper provided.
- Noted staff changes within the NAQS entomology team and that in addition to L Watson and A Genge, Bill Doherty is also currently sorting and performing IDs for NAQS Qld traps.
- Samples transported in propylene glycol have been submitted for DNA processing to assess suitability for morphology and DNA barcoding. Results are pending due to other priorities including the varroa mite response.
- Existing identification aids available include Dyce's Wing Atlas and a key to NT/WA/SA species. The east coast species have been a gap. Current project underway to produce a key to help identify females of all species present in Australia, and important exotic species. As part of this project, illustrated fact sheets for each species have been developed and are currently under review.
- Noted that there is a DAFF funded project assessing Culicoides species as potential as vectors of LSD in Thailand. The project is seeking to assess which species feed on bovinds and

horses, their distribution and abundance. The work is broader than LSD, looking at characters that make a good vector.

- Raised concerns on data integrity and inconsistencies in species records within the NAMP database particularly the undescribed species e.g. Ornatus group vs ornatus species which are completely separate species with separate breeding sites and distribution. Some species are difficult to identify beyond species group level and these may be erroneously recorded as belonging to that group. Work is required to clarify species complex vs species and review data that requires confirmation.
- Discussed that the entomology data as it stands is not suitable for modelling, particularly given dubious records and significant in-site factors influencing the counts of species within trap collections.

Conclusion/s

The NAMP Technical Committee noted the reference entomology report for the 2021–2022 arbovirus season and the need to review the database species list and dubious records.

Action/s

13. AHA to work with G Bellis to review and update the database to reflect species complex vs species.
14. AHA to scope a project to review NAMP entomology data.

3.11 Activity Summary 2021–2022 – E Sears

- Reflective of pending data and time available this item was deferred to an out-of-session activity. Coordinators were requested to review the activity summary available within the NAMP-Info and ensure that the annual text reports provide commentary on significant (+/- 10%) under or over activity.

Conclusion/s

The NAMP Technical Committee deferred this item to an out-of-session activity, noting that the report will need to be updated prior to the Steering Committee meeting to reflect late end of season bleeds and remaining activities to be entered into NAMP-Info.

Action/s

15. Coordinators to review activity summary, provide commentary for significant over or under activity and advise AHA of any inconsistencies.

4.1 Bluetongue virus zone change proposals – D Finlaison

- Discussion of zone change proposal expanding the BTV zone of transmission in the Central-West and North-West Slopes region of NSW, noting midge vector detection, serology and PCR results.
- Discussion of zone change proposal retracting the BTV zone of possible transmission on the NSW South Coast region. Noted that historically the region has moved in and out of the zone of transmission depending on the season. Current monitoring results show absence of BTV transmission for the last two years. Frequent monitoring at Nowra and Camden will continue to detect any changes in transmission.

Conclusion/s

The NAMP Technical Committee endorsed the expansion of the bluetongue virus zone of transmission in the Central-West and North-West Slopes regions of NSW.

The Technical Committee endorsed the expansion of the bluetongue virus transmission free zone in the South Coast region of NSW.

Action/s

16. AHA to confirm endorsement from QLD, VIC, TAS, and implement the changes on the NAMP BTV Interactive Zone Map.

4.2 LiveCorp Update – C Hallatt (Livecorp)

- C Hallatt provided a verbal update on behalf of LiveCorp.
- Outlined that live exports fluctuate with national herd which is affected by weather.
- The priority has been market maintenance and support of importing markets. Noted current high level of focus on FMD and LSD. Export cattle numbers to Indonesia have reduced at present with the FMD vaccine shortage as cattle need to be vaccinated on arrival.
- Noted that LiveCorp has not had any issues raised from industry members with regards to BTV and reflected on the success of Exercise Tiliqua and that NAMP is invaluable.

Conclusion/s

The NAMP Technical Committee noted the update from LiveCorp as the Steering Committee Industry Representative.

Action/s

Nil

4.3 Molecular Testing – D Gopurenko

- D Gopurenko provided a presentation on a project looking at a DNA metabarcoding platform for rapid identification of bulk sampled pest biting midges.
 - It involves non-destructive mtDNA sequencing of species from type localities and broader regional areas, using RT-PCR probe approaches. The method determines the presence or absence of midge species. Some challenges with reliable primers.
 - Project draws on the Barcode of Life Data (BOLD) system (www.boldsystems.org), which has a data portal with a registry of sequence clusters (BINs) that approximate species.
 - Current at the proof of principal phase. A lot of sequencing and bioinformatics.

Conclusion/s

The NAMP Technical Committee noted the update from D Gopurenko on molecular testing and requested a copy of the presentation noting that this is to remain confidential within the committee.

Action/s

17. D Gopurenko to share a copy of his presentation with the Technical Committee.

4.4 Rechargeable or solar powered light traps – B Loecker (NSW)

- B Loecker spoke to the paper provided, outlining an approach from a contractor (Perry Larsson - Toburgynbak Tech Logistics) interested in developing a more environmentally conscious power option for the NAMP traps.
- Discussion on advantages and limitations of different power sources.
 - Benefits of a rechargeable or solar powered trap include less waste and easier distribution of trap kits at the commencement of season.

- Solar powered traps may encourage the traps to be left in situ, resulting in reduced performance due to dust, potential damage and wear out of solar panels and challenges with connecting solar panels to the unit and placement of solar panel given traps are typically hung in trees.
- Rechargeable lithium batteries will require additional organisation and cost by NAMP Co-operators to ensure batteries are charged in time for trapping. If not charged, this may delay or prevent successful trapping.
- NAQS indicated that during the AHS work, the use of commercial AA rechargeable batteries was explored, however the successful run time was limited.
- The cost of developing and fitting the new solution remains unclear. It may not be cost-effective to retrofit the existing traps.

Conclusion/s

The NAMP Technical Committee provided in principle support of the concept pending a further developed proposal considering the limitations and cost of the options.

Action/s

18. AHA to discuss the limitations and requirement for a formal proposal with Perry Larsson.

Wednesday 24 August 9:00 am – 3:00 pm ACST

5.1 NAMP technical strategy (including proposed changes to monitoring for 2022-23) – All

- The committee discussed changes in the distribution, and understanding of the epidemiology, of NAMP viruses and vectors, particularly BTV in Australia.
- Discussion on the need to review the testing strategy to better understand the movement of different serotypes, particularly moving south along the eastern third of the country. There may be a gap in follow up of seroconverted animals to confirm if multiple serotypes are present. Discussion on the importance of full serotype PCR panels to be done at the end of the season. NSW will explore potential relocation of sites. NT conducted monthly bleeds which all seroconverted early in the season, then continued testing to detect secondary infections, then retested samples against all serotypes at the end of season.
- Agreement that the Kalumburu herd is a very important site for exotic detections and is at risk of being lost due to lack of an ongoing herd manager. Year-round competent management is needed for the animal welfare of the herd.
- South Australia raised concerns on the NAMP surveillance coverage in southwest Queensland, and whether there could be an additional sentinel herd or more frequent bleeding in this region. It was noted that access to this region has been difficult due to high rainfall.
- No new information about the competency of Australian vectors was identified by the committee.
- The committee discussed how to handle requests for testing stored NAMP samples for other arboviruses. The JEV National Animal Health Surveillance Plan includes an activity to test stored NAMP sera for JEV. Qld is seeking clarification on whether it requires NAMP TC or SC approval to test its stored samples for JEV. NSW tested its stored NAMP samples for JEV following CVO approval and AHA notification.
- The committee discussed whether samples are the property of the laboratory or the state and confirmed that NAMP samples (sera and insects) are the property of the state.
- The committee confirmed that it is the jurisdiction's decision as to whether NAMP samples can be used for retrospective testing of other viruses, and normal jurisdictional processes would apply. Some jurisdictions have wording on their laboratory submission forms that

samples may be tested for disease agents other than those disease agents for which they were submitted. Other jurisdictions do not have this wording on their laboratory submission forms. There was discussion in relation to a consent for other testing of insect samples, with agreement that it should be made clear that insect samples belong to the jurisdiction.

- The committee discussed the release of retrospective testing results to submitters. Currently there is no requirement for results of testing of additional disease agents to be reported back to the submitter.
- Challenges and costs associated with of storing samples need to be considered if there were to be an expectation that samples should be stored for testing for other disease agents.
- Discussion on emerging risks or changes to program risks from a technical perspective. LSD – currently not included in NAMP. Culicoides could potentially transmitting LSD virus, but this is not confirmed.
- Noted risks to the NAMP including the risk of a major response to FMD/LSD; and the risk of a cessation of live sheep exports affecting NAMP funding (a possibility after the next federal election).
- An issue was raised in relation to a NT property that is included in the BTV zone due to the closest property being 200km away, and this property is wanting to export. Currently no further testing has been done in the surrounding properties to be able to retract the zone boundary. There is potential for vector trapping to be completed to prove some evidence that this property should be in the transmission-free zone. It was suggested for T077 – Tennant Creek to test so the border can be retracted. Discussion around this property in the BTV zone to be raised in NABSnet. Further follow up with properties/regional/private vets needed to recruit NAMP properties in Barkly Tableland/SE NT

Conclusion/s

The Committee noted that the 22-23 monitoring strategy would be largely unchanged, and noted the current risks to the program. The Committee confirmed that NAMP samples are the property of the jurisdiction, however there is variation between jurisdictions as to whether submitters have given consent for samples to be tested for other disease agents.

Action/s

19. SA and Qld to explore opportunities for an extra site in the southwest of Qld.
20. Technical Committee representative and AHA to brief the Steering Committee on discussions around testing for additional diseases, noting differences between jurisdictional laboratory submission forms.
21. Further follow up with properties/regional/private vets needed to recruit NAMP properties in Barkly Tableland/SE NT and to be raised at NABSnet.

6.1 Workshop sustained local transmission – All

- It was noted that this agenda item arose as a recommendation from Exercise Tiliqua.
- The committee queried if the term 'sustained local transmission' was still relevant. Occasionally, there may be aberrant results, and it is essential is to understand the epidemiology and the to accurately determine the status of the herd within a local region. The Pilbara was noted as an example, where blow-in events can result in periodic transmission.
- Committee members reflected on the tools in the NAMP Operations Plan, particularly the flow chart on clarifying testing results in considering non-routine detections of BTV.
- Members suggested that 'sustained' should be removed, preferring the terminology 'local

transmission’.

Conclusion/s

The NAMP Technical Committee agreed that the term ‘sustained’ be removed and that the focus should be on ‘local transmission’ and understanding the epidemiology of aberrant detections.

Action/s

22. AHA to update references from ‘sustained local transmission’ to ‘local transmission’ throughout the NAMP Operations Plan.
23. Technical Committee representative and AHA to brief the Steering Committee on discussion and subsequent change in relation to ‘sustained local transmission’.

6.2 Operations Plan Review – All

- The Technical Committee discussed that additional guidance on a testing algorithm should be incorporated into the Operations Plan.
- Members agreed to the proposed changes drafted around responding to vector detections and the notification process. Discussion that additional clarity on sharing of information on non-routine detection of virus should be included, similar to the process currently outlined for non-routine vector detections. Members noted the value in having timely sharing of information throughout the season.
- Members requested that additional information on factors when considering home-bred status and size of NAMP herds should be incorporated into the Operations Plan. Noted that the currently herd size is typically 30 animals in a serosurvey herd and 10 animals in a sentinel herd.
- It was raised that detection of non-NAMP arboviruses is outside of NAMP scope. Committee agreed to remove 7.4 (3c).
- Discussion on timing and frequency of trapping. Preferably collected within several days of the new moon. Other factors affecting vector numbers not included in the Operations Plan include wind, rain, presence of cattle, etc.
- The updated Operations Plan should specify that to reduce risk of accidental contamination in the laboratory, samples from BTV-free zones should be tested before samples from the BTV transmission zones.

Conclusion/s

The NAMP TC agreed on the suggested changes to the Operations Plan, which will be updated accordingly by AHA.

24. NSW to lead the development of a testing algorithm for inclusion in the Operations Plan
25. AHA will ensure all co-ordinators have access to the BVIR & BENT sections of the NAMP-info database.

7.1. NAMP-info database – All

- The new layer mapping showing the 100km radius from seropositive sites was noted as being helpful when considering zone changes.
- Concerns were raised as to whether the AUSPestCheck system could adequately meet the requirements of NAMP and if jurisdictions would be required to use multiple systems and potentially double handling the inputting of NAMP data.
- It was noted that the NAMP site would be unable to integrate PowerBI

- Ideally it would be valuable to be able to map BTV serotypes and vector species identified at the various sites.
- SA raised that the legend on the interactive map extends down over the date options when multiple layers overlap.

Conclusion/s

The Technical Committee noted updates to the NAMP-*info* database and suggested enhancements.

Action/s

- 26. AHA to explore if *Culicoides spp.* and BTV serotype information could be added as layers.
- 27. C Dickason to take screenshot of map legend issue and send to E Sears for action.

8.1 Management Report – E Sears

- E Sears provided an overview of the draft Management Report.
- The committee noted that the report needed to include
 - the recommendation to add an additional budgeted site at Gatton
 - the limited availability of co-operators in the southwestern corner of Qld/eastern NT and the current gap in monitoring information available from this region
 - the value of the Kalumburu site for early warning and risk to the program if the herd collapses
 - the continued surveillance on the NSW south coast following the retraction of the zone.
- It was noted that the data and maps will need to be updated prior to finalisation, and that the data as currently presented is missing the Esperance site from the vector map.

Conclusion/s

The Technical Committee supported the overall format of the report, noting that data updated will be updated prior to finalisation for the Steering Committee.

Action/s

- 28. AHA to update the management report to include key recommendations and risks discussed during the Technical Committee meeting and end of season data.

9.1 Any other business – All

NAMP Business Plan

- No additional changes to the Business Plan were raised outside. Changes as discussed earlier in the meeting were to clarify the wording on the Technical Committee's role to provide ad hoc advice to CVOs and to escalate the technical risks discussed to the Steering Committee for consideration when they next review the risk register.

BVL offshore surveillance

- NT discussed the opportunity of re-establishing sentinel herd sites in Timor Leste and Papua New Guinea. Offshore work has been previously undertaken and has been valuable in early warning intelligence for BTV serotypes. Testing has historically been undertaken offshore and at BVL and/or ACDP.
- The Committee agreed that it would be valuable for offshore monitoring to be re-established. Data from offshore has additional sensitivities, and it was agreed that

monitoring results from offshore work be discussed confidentially within the NAMP Committee annual meetings.

NAQS NAMP Reporting

- NAQS currently provide text reports on their herds and trap activities across NT, Qld and WA as well as directly uploading data for their Qld activities. NAQS monitoring activities in NT and WA are currently being reported by the respective government agencies.
- NAQS is seeking to directly report virology and entomology data for their sites. Discussion on reporting and finalisation of results for NT sites to be held OOS. WA supported NAQS directly reporting on Kalumburu.

Conclusion/s

The committee were supportive of re-establishing offshore monitoring support with PNG and Timor Leste, noting the early warning that these provide for BTV serotypes in the region. NAQS will continue discussions on reporting for their sites and advise of any changes.

Action/s

29. NAQS to discuss reporting of their virology and entomology activities with NT and advise AHA of any changes in the current process.

9.2 Location and dates of next meeting – Chair

- Tentative dates for the 2023 Annual Meeting are 23 and 24 August, with ACDP, WA and SA as potential locations.

Meeting close: 14:30 PM.

NAMP TECHNICAL COMMITTEE – ACTION REGISTER

Tuesday 23rd – Wednesday 24th August 2022

#	ACTION	WHO	BY	STATUS
1	Review the wording of the new NAMP TC ToR to clarify non-NAMP arboviruses.	AHA	February 2023	Complete
2	Keep TC informed the duplication issue with the interactive map and database update.	AHA	August 2023	Ongoing.
3	Review the EHDV paper (continued from 2021 actions).	A Robinson	February 2023	Carried over.
4	Confirm where the AHS data is stored and how many sites.	NAQS	February 2023	
5	Advise if samples submersed for >3 months in propylene glycol are suitable for molecular analysis.	G Bellis	February 2023	
6	Advise WA of the site code for Esperance.	AHA	September 2022	Complete.
7	Send to WA a list of countries who test for BTV pre-export.	A Robinson	November 2022	
8	Continue backlogged testing and identification and advise AHA of finalised monitoring data for the season.	NT	December 2022	In progress.
9	Update NAMP Annual Wiki report to reflect entomology results.	WA	November 2022	Complete.
10	Update budget and monitoring plan to include the Gatton site.	AHA	September 2022	Complete.
11	Discuss the transmission of BTV15 during the 2021-22 season and testing protocols.	NSW and Qld	February 2023	
12	Follow up on the status of the suspect Simbu result, removing the record from the database until it has been resolved.	AHA and Vic	October 2022	Result removed from NAMP database.
13	Review and update the database to reflect species complex vs species.	AHA and G Bellis	August 2023	
14	Scope a project to review NAMP entomology data.	AHA	August 2023	
15	Review activity summary, provide commentary for significant over or under activity and advise AHA of any inconsistencies.	Coordinators	November 2022	Complete.
16	Confirm endorsement from QLD, VIC, TAS, and implement the changes on the NAMP BTV Interactive Zone Map.	AHA	September 2022	Complete. Endorsement received.

17	Share a copy of his presentation with the Technical Committee.	D Gopurenko	November 2022	Complete.
18	Discuss the limitations and requirement for a formal proposal with Perry Larsson.	AHA	December 2022	In progress.
19	Explore opportunities for an extra site in the southwest of Qld.	SA and Qld	August 2023	Complete. Naryilco (Q415) has been added to the NAMP in Qld as a budgeted survey site
20	Brief the Steering Committee on discussions around testing for additional diseases, noting differences between jurisdictional laboratory submission forms.	Technical Committee representative and AHA	December 2022	In progress.
21	Further follow up with properties/regional/private vets needed to recruit NAMP properties in Barkly Tableland/SE NT and to be raised at NABSnet.	NT	August 2023	
22	Update references from 'sustained local transmission' to 'local transmission' throughout the NAMP Operations Plan.	AHA	November 2022	In progress. To be ratified by the SC.
23	Brief the Steering Committee on discussion and subsequent change in relation to 'sustained local transmission'.	Technical Committee representative and AHA	December 2022	In progress.
24	Lead the development of a testing algorithm for inclusion in the Operations Plan	NSW	February 2023	
25	Ensure all co-ordinators have access to the BVIR & BENT sections of the NAMP-info database.	AHA	October 2022	Complete. All co-ordinators have been given permissions to view these.
26	Explore if <i>Culicoides spp.</i> and BTV serotype information could be added as layers.	AHA	August 2023	
27	Take screenshot of map legend issue and send to E Sears for action.	C Dickason	November 2022	Complete. AHA is working with IT contractors.
28	Update the Management Report to include key recommendations and risks discussed during the Technical Committee meeting and end of season data.	AHA	November 2022	Complete.
29	Discuss reporting of NAQS virology and entomology activities with NT and advise AHA of any changes in the current process.	NAQS	February 2023	