

12 May 2025

Reference: CX11061 LMWQCC Bioreactors DA
Amendment

Environment Planning Sustainable Development
Directorate
480 Northbourne Avenue
Dickson ACT 2602

To the Assessing Officer,

CX11061 – LMWQCC Bioreactors DA 202341913 Amendment

Background

The Lower Molonglo Water Quality Control Centre (LMWQCC) is the largest inland sewage treatment plant in Australia. Canberra is also one of the fastest growing cities in Australia and as such, essential services need to continue to be upgraded alongside growth. The LMWQCC was built in the mid 1970's with a single chain of treatment to treat sewage for an equivalent population of approximately 270,000 people. The LMWQCC has been upgraded over the past 50 years with various projects occurring throughout the site to ensure both the continued ability to treat sewage and the modernisation of infrastructure.

Current treatment technology at LMWQCC involves screening, grit removal, primary treatment, secondary biological treatment through a Modified Ludzack-Ettinger (MLE) process with clarifiers, and tertiary treatment. Due to the ongoing and anticipated population increase in the Canberra region, the current LMWQCC secondary treatment process (Bioreactors) is near treatment capacity and needs an upgrade. Icon Water has developed a staged approach to increase capacity up to 2070 projected levels.

Capacity issues are most evident in winter and spring due to low mixed liquor temperatures combined with inadequate anoxic and aerobic biological reactor volumes. These factors result in poor biomass settleability that reduces clarification and nitrification capacity (full conversion of ammonia to oxidised nitrogen). When rainfall causes inflows to exceed process capacity, any additional flows are bypassed to the Bypass Storage Dam on site at the plant, in northwestern side of site. Reduced treatment capacity has increased the frequency of the uncontrolled discharge of partially treated effluent from the Bypass Storage Dam spillway into the Molonglo River, resulting in increased regulator and community interest.

Existing Approved DA

Icon Water has an approved DA (No: 202341913), which is to deliver an augmented secondary treatment process for LMWQCC, to meet system performance requirements, ensure compliance with licence requirements, and provide capacity to meet future population growth. The original DA was submitted in December 2023 and approved in September 2024. The secondary treatment process augmentation is to enable consistent biological treatment of wastewater, compliance with Icon Water's Environmental Authorisation No. 0009 for the site and other legislative requirements, using proven and maintainable equipment that ensures ongoing reliable treatment.

This project will deliver upgrades in system capacity at LMWQCC, enabling the secondary treatment process to treat approximately 432 ML / day – sufficient capacity to treat 3 x Average Dry Weather Flow

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(ADWF) (i.e., treatment flow target) for 792,000 equivalent population, which should be reached in approximately 2044 based on the base case population projections.

The project received an Environmental Significance Opinion (ESO) (referred to as the original ESO) on the 10 August 2023 for the proposed works before submission of the DA. The original DA submission was submitted under the *Planning and Development Act 2007*. The planning legislation has changed in the last couple of years and the overarching planning legislation in the ACT is now the *Planning Act 2023* with an update completed for the *Territory Plan 2023* at the same time. As such, this amendment is submitted under the *Planning Act 2023*, as a S205 request.

NOTE: At the request of the Conservator's Office, a new ESO submission was submitted for the project (superseding the original ESO) and an approval received from the Conservator on the 8 April 2025.

Existing Notice of Decision 2024: DA No: 202341913

The DA application was approved on the 12 September 2024 with associated conditions of approval presented in the Notice of Decision (NoD). These conditions will be met prior to commencement of construction works. This amendment is not expected to substantially change any of the previous conditions as the works are mainly within similar areas, as previously proposed, albeit some modifications as noted in the ESO are likely.

Conditions set by TCCS (identified in the existing NoD as 3a to 3o, inclusive) were assessed by Icon Water to be not relevant as works are commencing within the leased Icon Water block boundary. An email was received from TCCS confirming that the identified conditions were not applicable to works within the boundary (i.e. Icon Water leased Block). Therefore, in the amendment, Icon Water would recommend the removal of these conditions in the notice of decision. The building certifier will require all conditions to be satisfied or removed before works commence therefore formal removal of these conditions is requested to uncomplicate the building certification process.

Amendment Details

The approved DA allowed for the construction of the above-described infrastructure to treat sewage. Since then, the design elements of the project have progressed, along with associated investigations and opportunities to improve, innovate and consolidate infrastructure, has been identified. This has resulted in some optimisations and changes to footprint layout / configuration, however no change to the sewage treatment processes has been made. The majority of the original footprint has been retained and is still as per the original DA; however, some construction areas have been reduced and / or modified compared to the original DA application. Stockpile and laydown locations have also been identified, as presented in the drawings attached to this amendment.

As mentioned above, this amendment is primarily a result of design optimisation and innovation to reduce wherever possible consolidate the footprint of the works (for example, reduced total area of new treatment tanks); or additional ancillary equipment which is required to support the development and minor changes to the operating philosophy of some systems (for example, additional solids handling equipment and improved chemical dosing facilities).

It is noted that the 'new' aspects of the amendment are located within the existing central portion of the site, mainly in proximity to existing structures or those proposed in the original DA.

In preparation of this amendment, Icon Water have reviewed the ACT Government *Advisory Note 03: Substantially the Same – DA Amendments, May 2024*. Icon Water is amending the DA202341913 under Section 205 of the *Planning Act 2023*. A key consideration for a development to be amended is the ability to remain substantially the same as the original DA. Icon Water has evaluated the considerations in the advisory document and concluded this amendment is permitted as the proposal is substantially

the same as the original development proposal, i.e. all the above are required for the larger project (as per the original DA) and fall within the definition of being substantially the same, as the original development for which approval was originally given under DA202341913.

Furthermore, as per Section 206(2) of the Act, which states that the amendments to the development proposal must not be in breach of any Environmental Significance Opinion (ESO) conditions included in the Notice of Decision for DA202341913, the ESO request was resubmitted and approval received (following further discussion with the Conservator's Office) for the amendment, therefore there are no breaches to the Act.

The overall purpose of the development remains the same as the original DA submission, and there has been no change to the fundamental characteristics and essence of the development, including land use considerations. ***Further, there has been no change in the development's ability to treat wastewater, and there has been no increase in the development's ability to store sewage, sludge, or effluent, i.e. the quantitative and qualitative elements of the projects are substantially the same.***

NOTE: Icon Water requests that this amendment application be publicly notified as per Section 178 of the *Planning Act 2023*.

Amendments optimisations and changes to the original footprint are summarised below (Refer to drawing CX11061-DWG-001 for detail for corresponding numbering shown below, along with additional relevant drawings pertaining to each structure):

- 1) New upstream bypass proposed [See Dwgs for details: CX11061-DWG-006, CX11061-DWG-007 and CX11061-DWG-008].

Note: the current drawing indicates the presence of this structure, however potentially it may not be required and therefore will not be constructed.

- 2) New thickeners on the existing Sludge Holding tank are shown, as is the polymer dosing system required for thickener operation - Waste Activated Sludge (WAS) area [See Dwgs for details: CX11061-DWG-009, CX11061-DWG-010, and CX11061-DWG-011].
- 3) Grit removal system in same location to approved DA, but the layout has been optimised. This includes a required additional screen to ensure proper functioning of the overall process (as part of design development) [See Dwgs for details: CX11061-DWG-012, CX11061-DWG-013 and CX11061-DWG-015].
- 4) Fine Screens (FS4) is moved to the previous (Original DA) MBR1A location [See Dwgs for details: CX11061-DWG-015, CX11061-DWG-016 and CX11061-DWG-017].
- 5) Main Bioreactor (MBR) building has changed from extending eastward to extend more westwardly [See Dwgs for details: CX11061-DWG-018, CX11061-DWG-019 and CX11061-DWG-020].

Note 1: the internal configuration of the MBR, may potentially be subject to minor changes (e.g. plus or minus 2 m), subject to supply and sizing of vendor equipment.

Note 2: MBR tanks have been integrated with the main bioreactor structure to reduce overall impact / sizing.

- 6) New location for permeate tank and Chlorine Contact Tank (CCT) adjacent to the MBR system building and associated pipeline from the permeate tank to the existing outfall

Note: the road bend to the northwest of Permeate structure has been optimised to reduce impact to the adjacent trees, along with further trees that may be saved from placing infrastructure under the existing road. [See Dwgs for details: CX11061-DWG-021, CX11061-DWG-022 and CX11061-DWG-023].

- 7) Chemical Dosing / bulk sodium hypochlorite storage [See Dwgs for details: CX11061-DWG-024, CX11061-DWG-025 and CX11061-DWG-026].
- 8) New electrical switching station proposed [See Dwgs for details: CX11061-DWG-027, CX11061-DWG-028 and CX11061-DWG-029].
- 9) New permanent generator proposed [See Dwgs for details: CX11061-DWG-030, CX11061-DWG-031 and CX11061-DWG-032].
- 10) New Polymer Storage area [See Dwgs for details: CX11061-DWG-033, CX11061-DWG-034 and CX11061-DWG-035].
- 11) New Sugar Storage area [See Dwgs for details: CX11061-DWG-036, CX11061-DWG-037 and CX11061-DWG-038].
- 12) New flow measuring area in a similar location to the approved DA. Pipework from the flow measuring area towards the Fine Screens is now shown [See Dwgs for details: CX11061-DWG-039, CX11061-DWG-040 and CX11061-DWG-041].
- 13) Temporary structures and ancillary works are shown in CX11061-DWG-002.
 - Site plan shows the temporary site compound area i.e. demountable buildings and carpark.
 - Five (5) Laydown areas are proposed for equipment laydown on site (CX11061-DWG-002).
 - Stockpile areas (4) proposed for excavated soil stockpiling (CX11061-DWG-002).
 - Extension of the new road and general landscaping north of proposed new MBR system building.

Other changes to the DA, to be considered under this amendment are noted below:

1. The Primary Settling Tank (PST3) structure is *no longer required*; however, the below ground pipework is now shown in that location.
2. Removal of approximately 84 trees, as opposed to the previous 33 approved in the original DA. Impacts were deemed to not have a significant environment impact, as per the new ESO approval.
 - i. A tree assessment, attached to this proposal completed by ACT Tree Felling (2024), identifies trees in the new work area and the surrounds. The tree assessment catalogues details about the trees ranging from heights, age classes, species and retention values. Wherever possible, the number of trees to be removed will be reduced based on site conditions and site works.

An indicative 3D impression of the main Bioreactor building is provided in Figure 1 below.

A map of the original DA approved site plan is provided in Appendix 1.

A map of the original site plan overlaid with the new site plan is provided in Appendix 2.

A map of the proposed amended site plan showing tree removal is provided in Appendix 3.

The changes listed above are mainly associated with alterations to the locations or orientation, which now show greater detail but were always considered to be part of the original DA submission. Any additional areas of impact have been assessed by the Conservator to not have a significant impact as per the approved ESO for this amendment. This amendment is for the same development as was previously approved; to deliver an augmented secondary treatment process for LMWQCC, to meet system performance requirements, ensure compliance with licence requirements, and provide capacity to meet future population growth. Given the above changes, Icon Water concludes the development will remain the same as previously applied for in DA202341913.

A biodiversity sensitive urban design guide report has been provided with this amendment and development outcomes assessment report.



Figure 1 – Indicative 3D artist impression of main bioreactor buildings.

A Focus on Sustainable Outcomes

A further sustainable consideration has been incorporated into this project. The objective of new stockpiling and laydown locations is to keep material onsite, thereby promoting sustainable practices and reducing haulage costs and environmental and greenhouse gas impacts, associated with moving soil and rock to an off-site disposal facility, such as the Mugga Lane Landfill. Key factors that influenced the decision-making process to retain and reuse as much soil on site as possible, included the following:

1. Preliminary geotechnical investigations found significant amounts of rock in the area selected for the new bioreactors. Geotechnical investigations and constructability review have identified a sustainable opportunity to process, and reuse excavated rock on site for structural fill. This will negate the need for off-site disposal, and the importation of new structural fill. This will also minimise or eliminate a significant amount of haulage (and associated Greenhouse Gas emissions), environmental impacts from quarrying, impacts on residents from truck movements etc. To realise this sustainability opportunity (as well as handle the general large earthworks from the project), the project will require a larger area on site for processing and segregating material, and stockpiling for re-use once processed.

2. As LMWQCC is an operational STP site, there are limited areas for stockpiling and processing on site. Therefore, nominated areas have been proposed, following discussion with the Conservator's Office.

Icon Water submitted an updated ESO (December 2024) in relation to the proposed changes described. The Conservator's office provided an ESO for the works on the 8th of April 2025 stating that there is no significant impact associated with the changes. Icon Water have gone to considerable effort to micro align new infrastructure and construction areas around environmental values on site to reduce associated impacts with this design. Further effort will be made to continuously look for opportunities to minimise environmental impacts during the next stages of the project.

Supporting Environmental Studies

Icon Water has conducted several new environmental studies to support the application since the original DA application. The following studies have been conducted or planned:

1. Visual Assessment – planned to commence in the coming weeks.
2. Contamination assessment – Preliminary Site Investigation with a limited Detailed Site Investigation completed by D&N geotechnical (2024). A further Detailed Site Investigation (DSI) is to commence shortly (with ADE Consulting Group), this will be after submission of the amendment.
3. Ecological assessments – from WSP (2022 and 2024) and a supplementary overall site assessment (under a different project scope) by Umwelt (2025).
4. A detailed Tree assessment was completed on 01 November 2024.
5. Heritage study – completed by Cultural Heritage Management Australia (CHMA) and representative aboriginal organisations (RAOs) (2023).
6. EPBC Self-Assessment – Icon Water (2023)

These assessments are attached to this amendment (where applicable) and described in summarised below.

Visual Assessment

A visual assessment is to be undertaken in 2025 to understand impacts from new infrastructure on surrounding land users and new suburbs currently under construction in Western Belconnen, which are over 2 kilometres to the north of the site (in addition to existing infrastructure on the site which is visible from some surrounding areas).

As a proactive measure, Icon Water has commenced some pre-emptive plantings of tall native species along the northern fence line at LMWQCC. This will be to help screen the new and existing infrastructure from public view. These trees are to be deducted from the total number of trees to be replaced for the project.

Contamination Assessment

Icon Water commissioned a contamination assessment which was finalised in February 2024, completed by D&N Geotechnical (2024). Risks associated with legacy infrastructure, generic fill around the site and the site's previous usage as agricultural land. Results found a couple of exceedances of contaminants of potential concern (CoPC), when compared with the adopted investigation level. There was some identification of asbestos in one borehole (noted as fill) which included weathered fibre cement fragments, and weathered fibre plaster material.

Soils on-site are generally expected to be suitable for off-site beneficial reuse consistent with the requirements of ACT EPA Information Sheet 4, except for in the location of the recorded exceedances. From the report, the consultant was able to conclude that the soils at the site could be classed as 'General Solid Waste (non-putrescible)', as per the guidance provided in *ACT Environmental Standards: Assessment and classification of liquid and non-liquid wastes* (July 2021).

An additional Contamination Assessment is currently underway (Consultant: ADE Consulting Group) to further characterise sub-surface conditions and results will identify appropriate mitigation measures required.

A site-specific Construction Environmental Management Plan (CEMP) will be prepared, based on collated data and submitted to the relevant authorities for approval, as requested in the ESO and DA. An unexpected finds protocol (UFP) will be part of the CEMP to manage potential risks during works of asbestos containing material (ACM) and other CoPC.

Ecological Assessments

Several ecological assessments have been conducted at LMWQCC. Two reports were done by WSP, in 2022 and 2024 respectively. The 2022 WSP report is the main biodiversity assessment report Icon Water has commissioned for this project. The 2024 WSP study was a follow up fauna survey, as per recommendations in the 2022 WSP report, albeit in an area unlikely to be impacted. Another sitewide ecological assessment was undertaken by Umwelt Environmental in 2024 and finalised in 2025. This Umwelt report was for the purposes of detailing site conditions and comparing them to potential species shown on ACTmapi, this is to allow appropriate future planning around ecologically sensitive areas on a space constrained site.

The assessment in 2022 by WSP was a preliminary biodiversity assessment report which aimed to identify the biodiversity values on site and provide recommendations to avoid and minimise environmental impacts. The report included vegetation surveys, fauna habitat assessments, diurnal bird surveys, and herpetofauna searches. The site was categorised into different ecological classifications. The majority of the site included areas of native plantings done by Icon Water. Two high value habitat trees were noted to be present southeast of the bypass storage dam. These were trees that could support such animals as woodland birds, reptiles, bats and arboreal mammals. These were both trees with hollows, however, were both smaller than 20cm and not suitable for such species as Gang-Gang Cockatoos. One of these is to be removed, labelled tree 98 which was assessed by the conservator to be high value. The tree was climbed by an arborist and hollows on the tree were measured and assessed for their ability to have bird nesting and the quality of hollows. The hollow survey ruled out the hollow bearing trees as suitable nesting sites for the Gang-Gang Cockatoo and Superb Parrot. The removal of this tree was assessed to not be a significant impact with surrounding habitats in the greater corridor providing potential habitat for such threatened species.

The Umwelt report (2025) had similar findings to the WSP report (2022), labelling areas worked in as highly modified and with predominantly exotic broad leaf weeds and grasses. The areas where the amendment is located are low quality and are to have a minor impact on the environment.

Tree Assessment

To support the ESO application and the amendment, an arboriculture assessment was undertaken by ACT Tree Felling in late 2024. The assessment provided details of each tree at LMWQCC which might be impacted by the works or in the vicinity of the works area. Details of trees were logged such as heights, age classes, hollows, retention values etc. The assessment found that the project will involve the removal of approximately 84 trees. The majority of these trees were planted by Icon Water over time as the plant has expanded with increased population and process improvements. Approval from the Conservator has been obtained for the removal of these trees via the ESO. However, during design

and construction, Icon Water will continue to search for opportunities to micro-align infrastructure and construction areas around existing trees, in an effort to further reduce the total number of trees to be removed under the project.

The tree survey report is attached to this submission.

Heritage Assessment

A Cultural Heritage Assessment was undertaken by Cultural Heritage Management Australia (CHMA) in October 2022. Assessment of the site reveals the presence of Aboriginal heritage values at various locations across the site. The majority of these will not be impacted as detailed in the Statement of Heritage Effect (SHE) produced by CHMA in 2022 and updated in 2023. The SHE report concluded that the proposed construction works and upgrades at LMWQCC will not adversely affect heritage values of the study area.

An Isolated Find (LMWQCC IF1) was previously recorded at the site in 1992. LMWQCC IF1 was recorded as a single artefact located on a small exposure of rock on the southern side slope of a mound adjacent to the existing road. The artefact occurred out of context and had been moved prior to its being recorded. A protracted search was undertaken as part of the survey (2022); however, no trace of this artefact could be found during the site assessment. CHMA assessed the study area as being of low potential heritage significance potential on the grounds that the vast majority of the study area has been subject to broadscale disturbance. It is noted that an Unexpected Finds Protocol (UFP) developed by CHMA (in their SHE) is to be implemented during construction activities, as part of the CEMP in the event heritage items are encountered.

A survey of artefact IF1 was required to be done before construction commenced and findings provided to ACT Heritage. Icon Water engaged CHMA and the Representative Aboriginal Organisations (RAOs) to search for artefact LMWQCC IF1 on the 26/02/25. The artefact was located during the site assessment and the single grey quartzite flake was discovered. Packard's 1992 recording of LMWQCC IF1 did not describe the artefact itself making it impossible to unequivocally determine whether the current quartzite flake is the same as that identified by Packard. However, the proximity of the two flakes to one another makes this highly likely. In addition to this, a broken cobble was found within an area historically utilised as a biosolids storage area. This artefact was assumed to have been deposited here from operations and was unlikely to be artefactual but was salvaged on the day with the suspected LMWQCC IF1 artefact.

In accordance with the approved management recommendations for this site, the salvaged artefact was collected, mapped and analysed before being individually bagged. The artefact and accompanying broken pebble will be returned to ACT Heritage for safe keeping while they establish a new Return to Country protocol.

All heritage management actions are to be undertaken in accordance with the "Lower Molonglo Water Quality Control Centre: Biosolids Management" (CHMA 2023). This includes following the unanticipated discovery plan provided by CHMA (2023) and for this to be embedded in the contractors CEMP.

On the 4th of March 2025, Icon Water received heritage advice from ACT Heritage regarding the ESO application. Condition 1 in this advice requires a SHE be completed for impacts to artefact MRC121. Icon Water have sent an email to ACT Heritage on the 18th of March 2025 requesting that this condition be removed considering this artefact is completely fenced off from the project already and will not be interacted with during the project. Additionally, Condition 3 states that fencing is to be installed around LMWQCC PAD 1, LMWQCC IF3 and LMWQCC Site 3. Icon Water is requesting this to be removed as these artefacts are fenced off from the works already and will not be interacted with during the project.

EPBC Self-Assessment

Icon Water conducted an EPBC self-assessment for the project in May 2023, under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This assessment was undertaken in line with the guidelines for self-assessment. The assessment concluded that works are not likely to impact on any species listed within the EPBC Act and unlikely to have a significant impact on the environment. EPBC species have also been considered in the ESO assessment.

This assessment will be updated to reflect the most recent complementary study undertaken by Umwelt 2025 (see below), if applicable.

Community Consultation

Icon Water undertook extensive engagement with the community for this project (Bioreactors) as well as our other planned major projects at the LMWQCC site.

Phase one of the engagement was conducted in July and August 2022 and involved convening our citizens' panel over four sessions. The panel sessions informed our communication and engagement for the project, and tested Icon Water's thinking and decision-making approach. For the bioreactors project, participants understood the need for the expansion of the LMWQCC sewage treatment process, trusted Icon Water's decision making, due to the lower community and environmental impact of the contained treatment processes and supported the treatment option ultimately selected (membrane bioreactors). Additional information can be found on our Let's Talk page (<https://www.iconwater.com.au/sites/default/files/2024-02/LetsTalkwebcontentPhaseoneinsights.pdf>)

Phase two of the engagement was conducted from November 2022 to July 2023. It included two sessions with Icon Water's Expert Panel, an environmental forum, and an online community survey completed by 3,250 Canberrans, and presentations to local community councils. Overall, participants showed general support for the chosen technology, wanted to understand what technology was considered and other locations it was utilised, wanted to understand how investments were funded, and understood the importance of environmental impacts of the projects. Additional information on phase two can be found on our Let's Talk page (<https://www.iconwater.com.au/sites/default/files/2024-02/Lets%20Talk%20webcontent%20Phase%20two%20insights.pdf>)

The mandatory public notification period during the DA submission is 15 working days. During the original lodgement of the DA, Icon Water requested that this period be extended to ensure the public had adequate time for representation. The public notification period was extended to a total of 35 working days, an additional 20 days of notification.

Meetings with ACT Government Departments Regarding Amendment

Icon Water have proactively engaged with the Conservator of Flora and Fauna's Office and the EPSDD impact team, throughout a majority of the approvals process. Icon Water has had several meetings online, at the ACT Government office and at the LMWQCC site, to discuss forthcoming legislative changes and implications to the development, micro alignment of assets, environmental impacts (EIS) and greenhouse gas emissions. Discussions concluded that a new DA or an EIS would not be required, although an amendment was considered appropriate.

The changes to the development as part of this amendment are minor, comprising the reconfiguration of assets remaining within the general footprint of the approved DA. During consultations, the Conservator's office required the resubmission of an updated ESO. Updated tree replacement ratios were also discussed along with liaising with Parks and Conservation Service (PCS) to identify locations for native plantings required as part of vegetation replacement ratios. There is a general consensus from the Conservator and PCS as to where the replacement vegetation will be planted; this is to be in the surrounding Woodstock Nature Reserve and down the Molonglo River reserve generally (see Landscape drawing CX11061-DWG-051).

A chronology of the meetings is presented as follows:

1. Pre- DA Consultation – between Feb and March 2023 with Dominic Riches and Benjamin Huttner-Koros and March 2024 with Brad Maxwell. Attached as document C1.
2. Discussion with EPSDD and Conservator regards the two preferred options and confirmation neither would require an EIS on 2/04/2024. As stated in the email correspondence (3rd and 5th April 2024) following the meeting with Conservator Liaison and Impact Assessment, it was confirmed that an EIS would not be required for either of the two options. The current option has a considerably less impact on the environment than the alternative and was one of the reasons for its selection by Icon Water. Attached as document C2.
3. Confirmation with Conservator liaison regards worst case scenario (least environmentally favourable option) and tree replacement on 9/05/2024. This concluded that even with the worst-case scenario, an EIS was not required for the project. Attached as document C3.
4. LMWQCC site visit with Conservator's Office and EPSDD / Impact Team on the 20/3/2025.

Construction Environment Management Plan

A CEMP is being developed by the contractor which identifies the environmental impacts and associated environmental mitigation measures to be implemented during the construction phase. This document is being prepared in accordance with the ACT EPA *Environmental guidelines for preparation of an Environment Management Plan, 2013*.

The CEMP will satisfy conditions in the ESO and DA. The CEMP will be endorsed by the Conservator of Flora and Fauna before construction commences.

List of documents referenced

List of documents referred to in this document and submitted with this amendment noted below. Additionally, provided below is a quick reference guide for the minimum documentation requirements showing their locations within submitted documents.

- ACT Heritage, February 2024, 20240202 - SHE Approval - CX11061 Bioreactors - Belconnen B1553.
- ACT Heritage, 18 March 2025, Icon Water Request Heritage LMWQCC Bioreactors - Heritage Advice ESO202400059.
- ACT Heritage, 3 March 2025, 20250303 - Advice - ESO202400059 - B1553 Belconnen - Bioreactor expansion LMWQCC.
- ACT Government, April 8, 2025, Environmental Significance Opinion Approval.
- ACT Government, April 8, 2025, Environmental Significance Opinion Approval Letter to Proponent.
- ACT Government, 10 August 2023, Environmental Significance Opinion Approval.
- ACT Government, 10 August 2023, Environmental Significance Opinion Approval Letter to Proponent.
- ACT Government, 2025, TCCS correspondence regarding conditions of approval in notice of decision DA202341913.
- ACT Tree Felling, 2024, Tree Survey LMWQCC.
- ACT Tree Felling, 2024, Tree Survey Data.

- (C1) CX11262 and CX11061 - Biosolids & Bioreactor Projects
- (C2) CX11061 - DA for Delta Project (DA-202341913)
- (C3) CX11061 - DA for Delta Project (DA-202341913) Tree Replacement Numbers
- Cultural Heritage Management Australia, 2023, Lower Molonglo Water Quality Control Centre Bioreactors SHE.
- D&N, 2024, Geotechnical Report.
- Icon Water, November 2024, Environmental Significance Opinion Report.
- Icon Water, 2023, EPBC Self-Referral.
- Umwelt Environmental, 2025, Ecological Assessment LMWQCC.
- WSP, 2024, Targeted Fauna Survey.
- WSP, 2022, Preliminary Biodiversity Assessment Report.

Meeting Minimum Documentation requirements

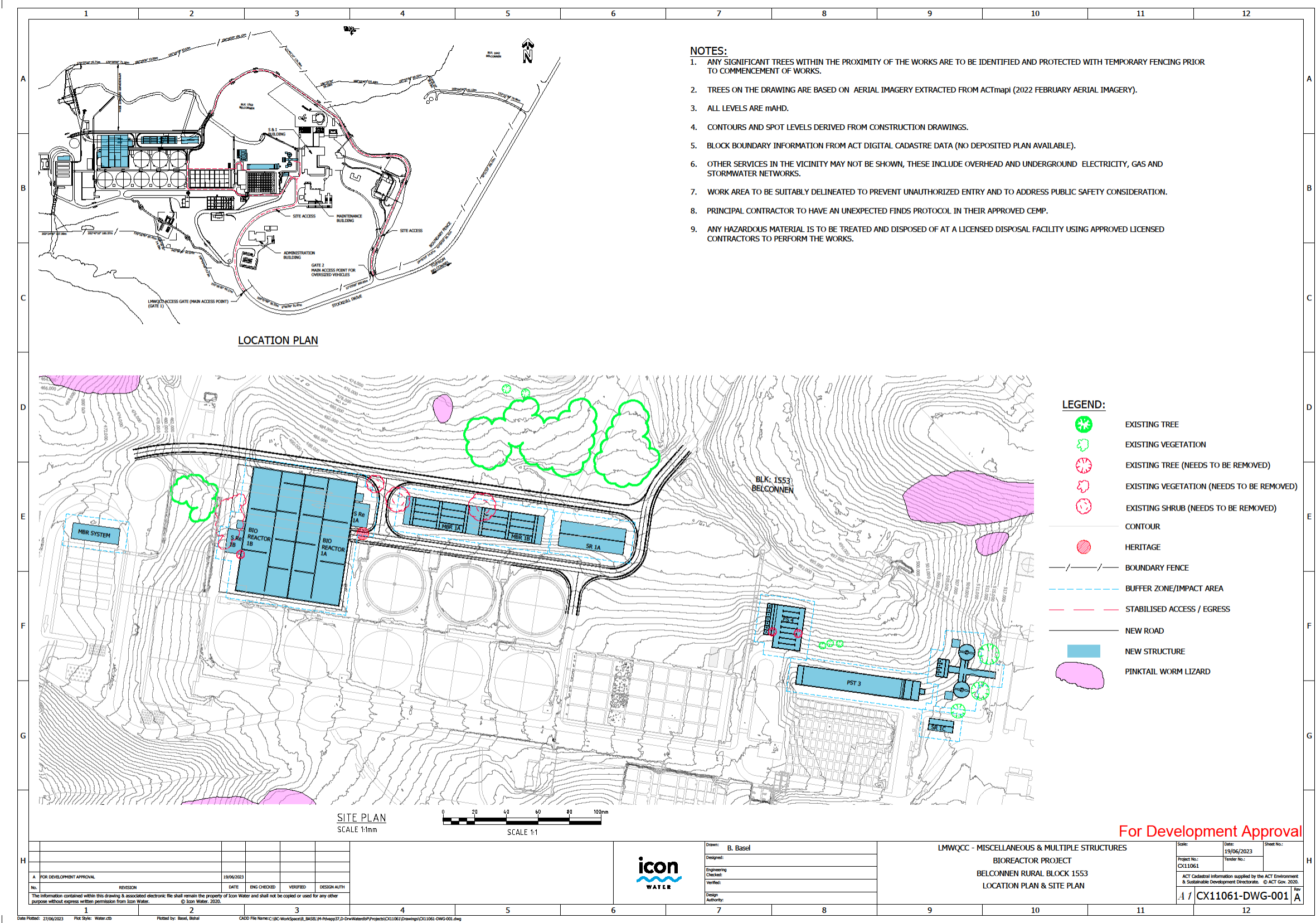
The following table provides a comparative overview against the Minimum Documentation Requirements and document location within the references.

Quick Reference Guide for Minimum Documentation Requirements:

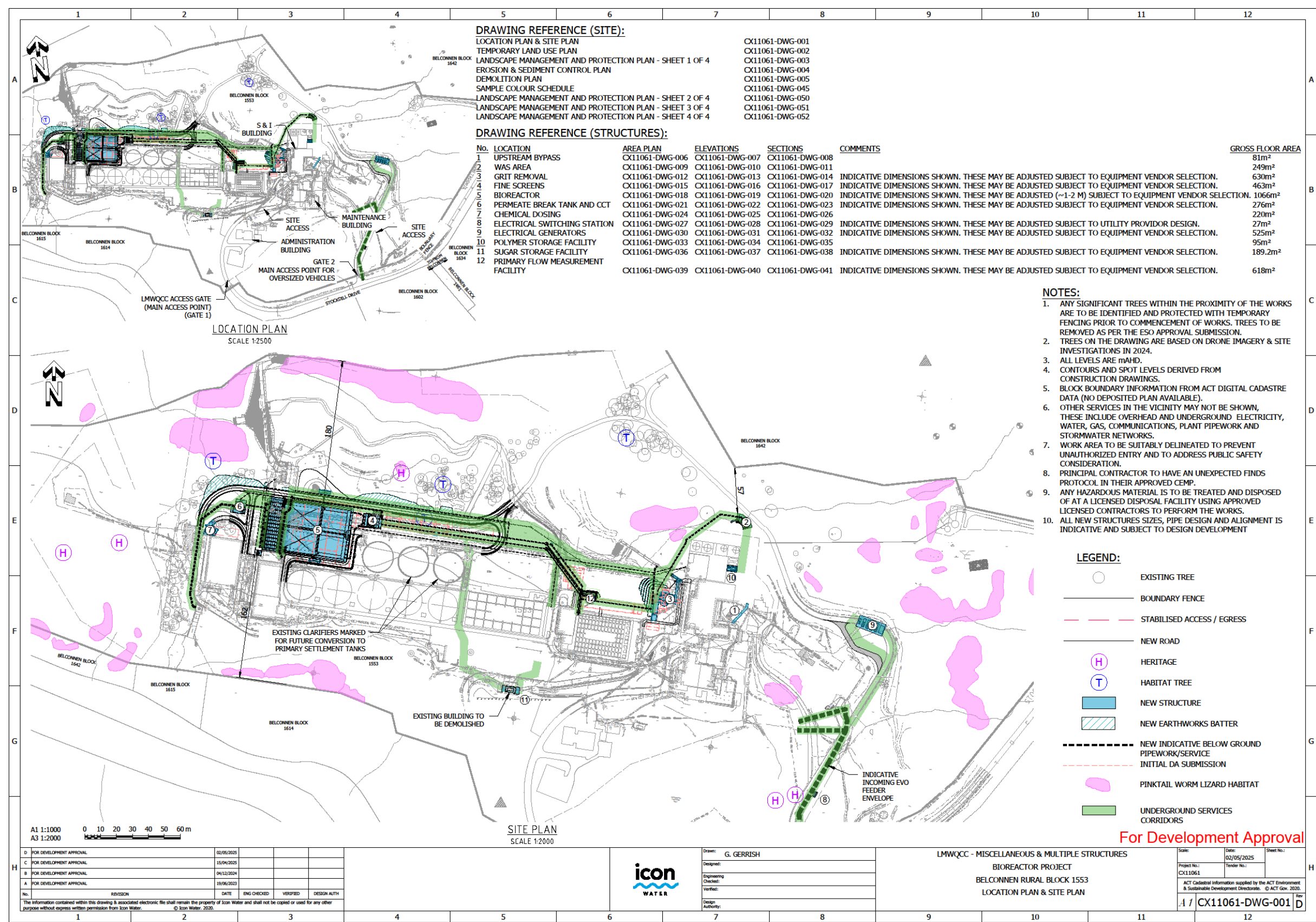
Minimum documentation required	Reference to location document has been presented
Current Biodiversity Values Plan	Spread throughout the Biodiversity Sensitive Urban Design Guide: • Step 1 A – ○ Figure 4 (Potential significant species from ACTmapi – Page 5) ○ Figure 5 (Potential vegetation present from ACTmapi – Page 7) ○ Figure 7 (Vegetation communities from WSP field survey, 2022 – Page 10) ○ Figure 8 (Threatened species map, WSP 2022 – Page 11) ○ Figure 9 (Vegetation communities from Umwelt field survey, 2025 – Page 12).
Proposed Biodiversity Values Plan	Drawing: ○ CX11061-DWG-001 (shows infrastructure footprints and protected matters i.e. Heritage, PTWL and high value trees). Biodiversity Sensitive Urban Design Guide: ○ Step 2 A – Figure 11 (shows the infrastructure and the threatened ecological communities – Page 17).

Erosion and Sediment Control Plan	Drawing: ○ CX11061-DWG-004
Landscape Plan	Drawing: ○ CX11061-DWG-003 ○ CX11061-DWG-050 ○ CX11061-DWG-051 ○ CX11061-DWG-052
Colour Sample Schedule	Drawing: ○ CX11061-DWG-040
Temporary Land Use Plan	Drawing: ○ CX11061-DWG-002
Demolition Plan	Drawing: ○ CX11061-DWG-005

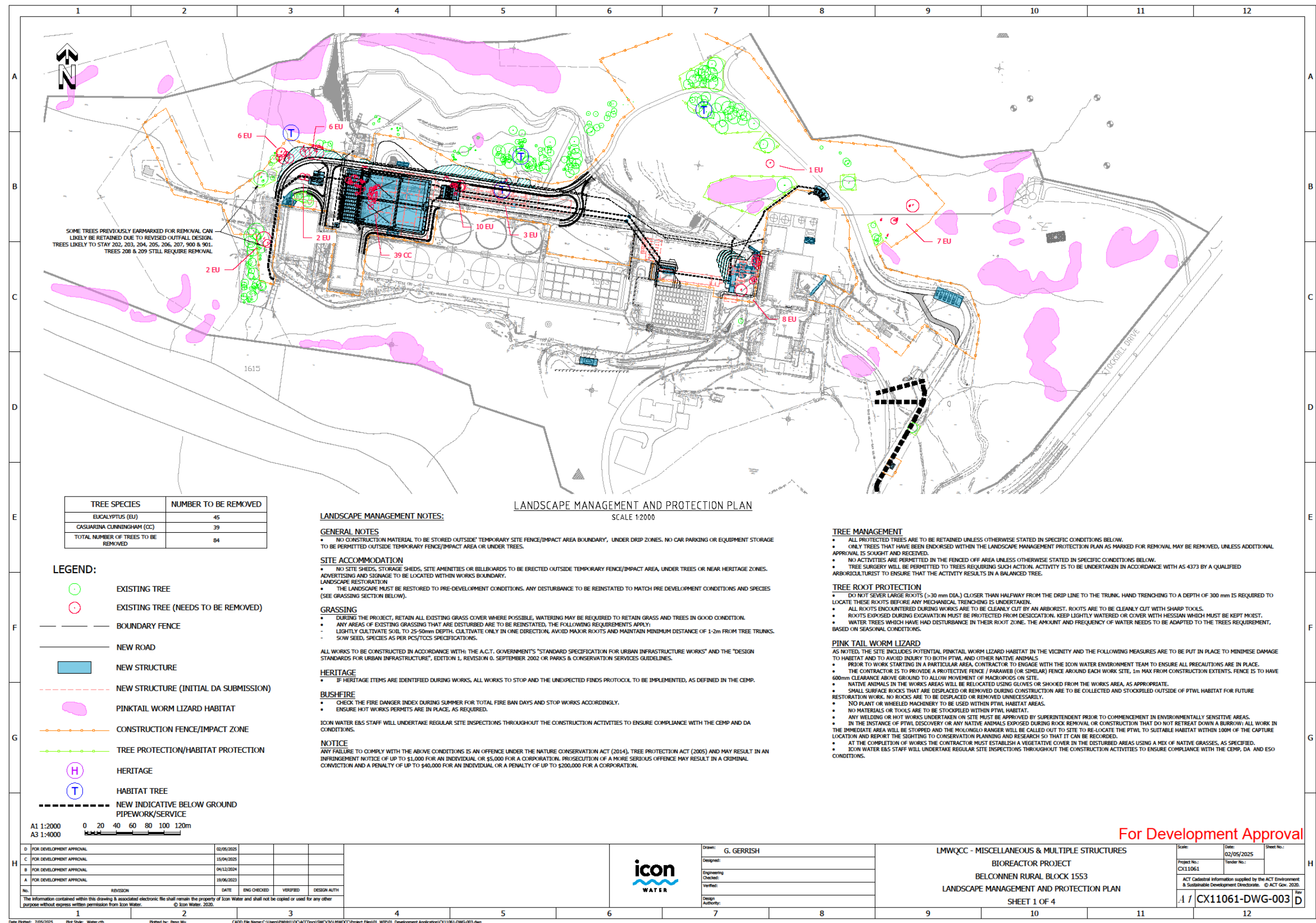
Appendix:



Appendix 1 – Previously Approved Location Plan and Site Plan for DA.



Appendix 2 – Proposed amendment changes.



Appendix 3 – Landscape Management Plan with updated tree removal numbers.