Your ref: SSD-79885459
Our ref: DOC

Jess Watson
Senior Environmental Assessment Officer
Department of Planning, Housing and Infrastructure
4 Parramatta Square
Parramatta NSW 2150

By email: jess.watson@dpie.nsw.gov.au

Bookham Wind Farm (SSD-79885459) – Request for SEARs

Dear Ms Watson,

I refer to your email dated 10 February 2025 to the Conservation Programs, Heritage and Regulation Group (CPHR) and the NSW National Parks and Wildlife Service (NPWS) of the NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEEW) seeking input into the Department of Planning, Housing and Infrastructure Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an Environmental Impact Statement (EIS) for Bookham Wind Farm (SSD-79885459). Please note that this letter does not include advice from Heritage Division.

CPHR has considered your request and provides SEARs for the proposed development in Attachments A and B. In preparing the EIS, the proponent should refer to the relevant guidance material listed in Attachment C.

CPHR recommend the EIS appropriately address the following:

1. Biodiversity and offsetting

2. Water and soils

3. Flooding

NPWS requests that the requirements listed in Attachment A (21) be included in the SEARs to ensure the future preparation of an EIS explicitly considers land reserved under the NPWS Act.

Access to land reserved under the *National Parks and Wildlife Act 1974* by the proponent to conduct any survey, or environmental investigation to inform the overall preparation of the EIS must seek prior consent from the relevant NPWS Manager, with initial contact to be made via npws.alpinequeanbeyan@environment.nsw.gov.au.

We note the project proposes to construct and operate approximately 99 wind turbine generators (WTGs), associated electrical infrastructure and ancillary facilities. The proposed WTG array, as currently presented, is primarily located on or adjacent to farmland with native vegetation present throughout the proposed site and Burrinjuck Nature Reserve adjoining the southern boundary. More broadly, the proposed development boundary is in close proximity to:

- Bungongo State Forrest
- Black Andrew Nature Reserve
- Oak Creek Nature Reserve
- Old Jeremiah Flora Reserve

Given the proximity to the reserves and to the maternity colony at Church Cave (discussed further below), the EIS needs to:

- Identify and maximise avoidance of potential bird and bat movement corridors across the landscape through turbine micrositing and deletion; and
- defining appropriate setbacks for wind turbines from significant areas of native vegetation to minimise potential bird and bat strike.

Risk Assessment for the large bent-wing bat (*Miniopterus orianae oceanensis*)

The southern boundary of the proposed within farm is approximately 20 km from the large bent-wing bat (formerly known as the eastern bent-wing) maternity site at Church Cave near Wee Jasper. This cave is of very high conservation value as it is estimated that up to 30% of the female population in NSW utilise the cave to raise their young. It has been demonstrated that females fly long distances from the cave to forage (distances greater than 30 km have been recorded) and at heights making them susceptible to blade strike. It is therefore almost certain that sections (including cleared land) of the subject site are being utilised. This risk needs to be quantified to ensure that it does not impact upon the population overall. It should also be noted that this species is a SAII entity.

CPHR has consulted with Dr Doug Mills from NPWS who is an expert on the species, and based on his advice, we recommend the approach below is used to assess use of the site.

- An ultrasonic recording device is installed at 60 locations stratified on the basis of landscape position and proximity to vegetation. This sampling intensity is required given the large number of proposed turbines and its proximity to the maternity cave. This design will cover roughly 50% of the site with 500-1000m spacing between survey points. The survey needs to be conducted for two seasons:
- The survey needs to be conducted from late December to late March, (approximately 90 nights) which is the period that large bent-wing bat are resident at Church Cave.

- Each site should be surveyed for at least 30 nights across this period, using a 10-night rotation of 20 devices (e.g., Song Meter Mini Bat or similar) as follows:
    - Sites 1-20: Dec 20–Dec 30, Jan 22–Feb 1, Feb 24–Mar 6
    - Sites 21-40: Dec 31–Jan 10, Feb 2–Feb 12, Mar 7–Mar 17
    - Sites 41-60: Jan 11–Jan 21, Feb 13–Feb 23, Mar 18–Mar 28

While the above will provide information of the distribution of foraging across the subject site, it will not provide data on the heights that the species forages at. It has already demonstrated that they can fly at 100 m above the ground which is well within range of the rotor sweep (the lowermost blade tip typically ranges from 40-100 m). However, if further information is required, there are two options to gather this data: Detectors can be installed on wind monitoring masts and/or detectors can be suspended from weather balloons. Weather balloons offer the benefit of being significantly cheaper to deploy. DCCEEW can provide further information on the use of the balloon technique if required.

If wind monitoring masts are used, CPHR recommends that at least 5 masts are used and installed in the subject area.

The EIS also needs to consider the adoption of smart curtailment practices to reduce the risk of strikes on threatened species particularly on the large bent-wing bat. Such techniques may be the only way the risk of serious impact on the population can be avoided. Options include feathering of turbines or complete shut down at night during the summer months when the large bent-wing bat are known to forage.

Risk Assessment for birds

CPHR recommend utilising transect line surveys (20-minute surveys covering two hectares) that move through the landscape and PCTs to better capture bird species diversity, particularly smaller woodland birds. For any woody vegetation within proximity to a WTG, CPHR recommends sampling within a 300m radius to capture small passerine bird data effectively. These should be carried out across at least a 2 year period.

For raptor species, CPHR suggests that surveys use the vantage point method with at least three survey repetitions per point conducted in the morning, midday, and afternoon to adequately capture raptor flight patterns across different times of day. Other species of concern include white-throated needletails and similar swift species, which are known to fly at turbine height and could be at risk of collision.

Additionally, CPHR requests that more BBUS monitoring locations be placed to cover the central and north-west portions of the site, where survey coverage is currently lacking.

The EIS should provide a detailed risk assessment for each wind WTG which is supported by BBUS data and evidence from other wind farm developments. The EIS should present a list of mitigation

actions for WTGs with an increased risk of impacting biodiversity, such as avifauna detection technology and smart curtailment to reduce bird and bat strike during operation of proposed WTGs.

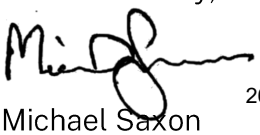
The scoping report identifies that a SAII listed Threatened Ecological Community (TEC's) is known or likely to occur within the subject area. CPHR advises that all Box Gum Woodland (a critically endangered ecological community), Yass Daisy, Crimson Spider Orchid, and other threatened vegetation should be avoided. Several threatened microbat species have been documented in the locality in addition to the large bent-winged bat (a SAII entity).

We recommend the proponent engage early with CPHR on all SAII entities that are likely to be impacted. If SAII is considered likely, additional and appropriate measures may be required, in accordance with section 7.16 of the BC Act.

Finally, CPHR also suggest a site visit to observe habitat constraints firsthand, as this would aid CPHR in making informed decisions about the habitat quality, associated risks, and to identify likely assessment issues prior to lodgement of the Environmental Impact Statement.

If you have any questions about this advice, please do not hesitate to contact Evan Creek, Conservation Planning Officer, via rog.southeast@environment.nsw.gov.au.

Yours sincerely,



26 February 2025

Michael Saxon
Director – South East Regional Delivery
Conservation Programs, Heritage and Regulation Group (CPHR)
Department of Climate Change, Energy, Environment & Water (DCCEEW)

Enclosures:

Attachment A – Standard Environmental Assessment Requirements

Attachment B – Project-specific Environmental Assessment Requirements

Attachment C - Guidance Material

Attachment A – Standard Environmental Assessment Requirements for Bookham Wind Farm (SSD-79885459)

Native Vegetation Regulatory Map – land categorisation

For State Significant Development (SSD) proposals that affect rural land as defined under Part 5A of the *Local Land Services Act 2013*, a draft Native Vegetation Regulatory Map is available upon request. This map as it relates to the development site must be requested from CPHR during preparation of the Biodiversity Development Assessment Report (BDAR) and prior to the BDAR being submitted to the consent authority. Requests should be made via the Data Broker – *data.broker@environment.nsw.gov.au*.

Where Category 2 – Regulated land mapped as present on a development site, this will be identified on the draft map supplied by CPHR and is land where the BAM must be applied.

Where Category 1 – Exempt Land is present on a development site, early engagement with CPHR is encouraged. Site-based floristic assessment is required to verify the presence or absence of critically endangered ecological communities (CEECs), critically endangered plants, threatened grasslands and threatened fauna, in order to confirm at the site scale whether the criteria for Category 1 – Exempt Land is met.

Prior to the BDAR being submitted to the consent authority, the accredited assessor should submit a proposed land categorisation method to the CPHR South East Planning team at rog.southeast@*environment.nsw.gov.au* for review.

For more information, see *Determining native vegetation land categorisation for application in the Biodiversity Offsets Scheme*

Biodiversity

1. The EIS must assess biodiversity impacts related to the proposed development in accordance with Section 7.9 of the *Biodiversity Conservation Act 2016* using the Biodiversity Assessment Method (BAM) 2020 and documented in a Biodiversity Development Assessment Report (BDAR), unless:
    a) a BDAR waiver is granted, or
    b) the site is on biodiversity certified land.

The BDAR must include information in the form detailed in the *Biodiversity Conservation Act 2016* (s6.12), *Biodiversity Conservation Regulation 2017* (s6.8) and the BAM.
2. The BDAR must apply the avoid, minimise and offset hierarchy including assessing all direct, indirect, uncertain and prescribed impacts in accordance with the BAM.
3. The BDAR must be submitted with all spatial data associated with the survey and assessment as per Appendix K of the BAM.
4. The BDAR must include details of the measures proposed to address the offset obligation as follows: a) The total number and classes of biodiversity credits required to be retired for the development/project; b) The number and classes of like-for-like biodiversity credits proposed to be retired; c) The number and classes of biodiversity credits proposed to be retired in accordance with the variation rules; d) Any proposal to fund a biodiversity conservation action; e) Any proposal to conduct ecological rehabilitation (if a mining project); f) Any proposal to make a payment to the Biodiversity Conservation Fund. If seeking approval to use the variation rules, the BDAR must contain details of the reasonable steps that have been taken to obtain requisite like-for-like biodiversity credits.
5. The BDAR must be prepared by a person accredited in accordance with the *Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017* under s6.10 of the *Biodiversity Conservation Act 2016*.
6. The EIS must contain a summary of the commitments set out in the BDAR to avoid, minimise and mitigate the biodiversity impacts of development that are to be implemented, post approval, by their inclusion in a Biodiversity Management Plan (BMP). The preparation of a BMP to fulfil the avoid and minimise requirements of the BDAR must be included as a condition of consent/approval, unless otherwise agreed with CPHR. The BMP must include detailed measures to minimise impacts on biodiversity, monitoring and reporting requirements, proposed adaptive management measures, performance criteria recommended to meet states outcomes, remedial actions to be undertaken if actions fail to achieve stated outcomes, and any additional actions relevant to the management of biodiversity.

7. If the development is on biodiversity certified land, provide information to identify the site (using associated mapping) and demonstrate the proposed development is consistent with the relevant biodiversity measure conferred by the biodiversity certification

NOTE – A BDAR template and guidance document has been created to assist accredited assessors to prepare a BDAR. It has been developed in accordance with best practice, minimum information requirements, and to support BDAR reviewers. The BDAR Template can be found here and the Guidance for the BDAR Template can be found here. Supporting digital data as per Appendix K of the BAM is also required to be submitted.

Water and soils

8. The EIS must map the following features relevant to water and soils including:
    a. Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map)
    b. Rivers, streams, wetlands, estuaries (as described in s4.2 of the Biodiversity Assessment Method)
    c. Wetlands as described in s4.2 of the Biodiversity Assessment Method.
    d. Groundwater
    e. Groundwater dependent ecosystems
    f. Proposed intake and discharge locations

9. The EIS must describe background conditions for any water resource likely to be affected by the development, including:
    a. Existing surface and groundwater
    b. Hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations
    c. Water Quality Objectives (as endorsed by the NSW Government http://www.environment.nsw.gov.au/ieo/index.htm) including groundwater as appropriate that represent the community's uses and values for the receiving waters.
    d. Where locally derived indicators and guideline values are not available for the relevant Water Quality Objectives, the EIS must refer to the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZG, 2018).

10. The EIS must assess the impacts of the development on water quality, including:

a. The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the development protects the Water Quality Objectives where they are currently being achieved, and contributes towards achievement of the Water Quality Objectives over time where they are currently not being achieved. This should include an assessment of the mitigating effects of proposed stormwater and wastewater management during and after construction, using the *Risk-based framework for considering waterway health outcomes in strategic land use planning decisions*.

b. Identification of proposed monitoring of water quality or required changes to existing monitoring programs

c. How the development meets the objects of the Coastal Management Act 2016 and management objectives of relevant Coastal Management Areas defined under this Act

d. Consistency with any relevant certified Coastal Management Program (or Coastal Zone Management Plan)

11. EIS must assess the impact of the development on hydrology, including:

a. Water balance including quantity, quality and source

b. Effects to downstream rivers, wetlands, estuaries, marine waters (including marine protected areas) and floodplain areas

c. Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems

d. Impacts to natural processes and functions within rivers, wetlands, estuaries and floodplains that affect river system and landscape health such as nutrient flow, aquatic connectivity and access to habitat for spawning and refuge (e.g. river benches)

e. Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water

f. Mitigating effects of proposed stormwater and wastewater management during and after construction on hydrological attributes such as volumes, flow rates, management methods and re-use options

g. Identification of proposed monitoring of hydrological attributes

Flooding and coastal hazards

12. The EIS shall include a flood impact and risk assessment (FIRA). As a minimum the FIRA must:
    a. Consider the relevant provisions of the NSW Flood Risk Management Manual (2023) and associated guides, and existing council and government studies, information and requirements
    b. Identify and describe existing flood behaviour on the site and its surrounding areas for the full range of events, including 5% AEP, 1% AEP, PMF and 0.5% AEP or 0.2% AEP and provide an assessment of the compatibility of the development and its users with flood behaviour. This may require flood modelling where existing flood information is not available
    c. Determine and describe changes in post development flood behaviour, impacts of flooding on existing community and on the development and its future community for full range of events, 5% AEP, 1% AEP, PMF and 0.5% AEP or 0.2% AEP. This will typically require flood modelling
    d. Consider impacts of climate change due to both sea level rise and increase in rainfall intensities considering relevant Council and government advice. The 0.5% AEP or 0.2% AEP events can be used to provide an understanding of the scale of change of flood behaviour relative to the 1% AEP event
    e. Propose and assess the effectiveness of management measures required to minimise the impacts and risks of flooding to the development and its users and existing community

    Note:
    - The scope of a FIRA is intended to be consistent with the Draft EHG FIRA Guide, which is being finalised currently.
    - The FIRA will need to be tailored to suit the project being considered, whilst maintaining consistency with the FIRA guide.

13. The EIS must demonstrate consistency with any certified Coastal Management Program (or Coastal Zone Management Plan) and be consistent with the management objects and objectives described in the *Coastal Management Act 2016* and development controls for coastal management areas mapped under the *State Environmental Planning Policy (Resilience and Hazards) 2021*.

Attachment B – Project Specific Environmental Assessment Requirements for Bookham Wind Farm (SSD-79885459)

Biodiversity

14. The project must address any Serious and Irreversible impacts (SAII) that may be impacted from the development.

Note: The '*Guidance to assist a decision-maker to determine a serious and irreversible impact*' provides criteria and supporting information to assist with the application of the SAII principles, including potential entities that meet the SAII principles and criteria.

15. The development may have direct impacts on biodiversity not assessed by the Biodiversity Assessment Method (s2.3, BAM). Biodiversity values not assessed under the BAM include marine mammals, wandering sea birds and biodiversity that is endemic to Lord Howe Island. A separate assessment of biodiversity values not covered in the BAM may be required under the BC Act or the *Environmental Planning and Assessment Act 1979* (s 1.5(2), BAM). EARs relating to biodiversity impacts not assessed by the BAM are developed by CPHR officers.

16. The following prescribed impacts in accordance with Clause 6.1 of the BC Act are to be assessed:
    - the impacts of development on the following habitat of threatened species or ecological communities—
        - karst, caves, crevices, cliffs and other geological features of significance,
        - rocks,
        - human made structures,
        - non-native vegetation,
    - the impacts of development on the connectivity of different areas of habitat of threatened species that facilitates the movement of those species across their range,
    - the impacts of development on movement of threatened species that maintains their lifecycle,
    - the impacts of development on water quality, water bodies and hydrological processes that sustain threatened species and threatened ecological communities (including from subsidence or upsidence resulting from underground mining or other

development) – refer to Addendum to NSW Biodiversity Offsets Policy for Major Projects: Upland swamps impacted by longwall mining subsidence (OEH, 2016),

- the impacts of wind turbine strikes on protected animals – refer to Wind farms: Turbine Strike Assessment and Adaptive Management Plan: Biodiversity Assessment Method Guide (BCS, 2023)
- the impacts of vehicle strikes on threatened species of animals or on animals that are part of a threatened ecological community.

17. Offsets for prescribed impacts are to be considered if avoidance and mitigation measures are not applicable, or will not result in the complete reduction of prescribed impacts occurring. The assessment and calculation of a predicted offset obligation in accordance with Section 7.14 of the Biodiversity Conservation Act 2016 should be presented in the BDAR.
18. Cumulative impacts should be assessed through application of the Cumulative Impact Assessment for State Significant Projects guidance (DPE, Oct 2022).

Acid sulfate soils

Note to be deleted: Project specific requirements may be issued in the following circumstances:

19. Where the proposed development/infrastructure (or part thereof) is located on land marked Class 1, 2, 3 or 4 on the relevant Acid Sulfate Soil Planning Map OR within 500 metres of adjacent Class 2, 3 or 4 land that is below 5 metres Australian Height Datum (AHD) and likely to lower the water table in this adjacent land below 1 metre AHD. (Acid Sulfate Soils Planning Maps can be located at *http://data.nsw.gov.au/data/*

A. The EIS must include a sound conceptual model developed for the site, including an understanding of local hydrogeological conditions, of the stratigraphic and lateral distribution of sulfide minerals, and of the presence of sensitive environmental receptors, and must:

a. Identify whether sufficient pyrite is present in sediments to cause significant acidification on oxidation

b. Determine whether mining activities are likely to cause oxidation of pyrite and leach acidity and soluble metals into groundwater or surface waterways

c. Determine the likely extent and severity of groundwater or surface water contamination that may be caused by acidic leachate from oxidising sediments

d. Identify whether there are ecosystems or groundwater users in the vicinity of the mine site that are likely to be exposed to contamination from acidic leachate

B. The EIS must describe mitigation and management measures that will be used to prevent, control, abate or minimise potential impacts from the disturbance of acid sulfate soils associated with the project and to reduce risks to human health and prevent the degradation of the environment. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.

C. The EIS must describe the contingency plan, incorporating a commitment to appropriate monitoring.

D. The EIS must assess the potential impacts of the development on acid sulfate soils in accordance with the relevant guidelines including the following:

a. Assessment Guidelines in the Acid Sulfate Soils Manual (Stone et al. 1998)

b. National Acid Sulfate Soils Identification and Laboratory Methods Manual (Sullivan et al. 2018a)

c. National Acid Sulfate Soils Sampling and Identification Methods Manual (Sullivan et al. 2018b), and where relevant

d. Overview and Management of Monosulfidic Black Ooze (MBO) Accumulations in Waterways and Wetlands (Sullivan et al. 2018c)

e. Guidelines for the Dredging of Acid Sulfate Soil Sediments and Associated Dredge Spoil Management (Simpson et al. 2018)

f. Guidance for the Dewatering of Acid Sulfate Soils in Shallow Groundwater Environments (Shand et al. 2018)

Samples must be tested according to procedures in the National Acid Sulfate Soils Identification and Laboratory Methods Manual (Sullivan et al. 2018a).

Water quality and hydrology

20. Large or high risk proposals with heightened potential to impact on water quality and hydrology. EARs for inclusion if this scenario applies depend on the nature, scale and/or risk of the proposal. Example EARs are as follows:

The description of existing water quality/hydrology in the EIS must be based on suitable data (meaning data collection may be required) and must include:

a. Relevant water quality objectives

b. Water chemistry

c. A description of receiving water processes, circulation and mixing characteristics and hydrodynamic regimes

d. Lake or estuary flushing characteristics.

e. Sensitive ecosystems or species conservation values

f.Specific human uses and values (e.g. fishing, proximity to recreation areas)

g. A description of any impacts from existing industry or activities on water quality

h. A description of the condition of the local catchment e.g. erosion, soils, vegetation cover

i. An outline of baseline groundwater information, including, for example, depth to water table, flow direction and gradient, groundwater quality, reliance on groundwater by surrounding users and by the environment

j. Historic river flow data

A. The assessment of the development on water quality and hydrology in the EIS must include:

a. Water circulation, current patterns, water chemistry and other appropriate characteristics such as clarity, temperature, nutrient and toxicants, and potential for erosion

b. Changes to hydrology (including drainage patterns, surface runoff yield, flow regimes, and groundwater)

c. Disturbance of acid sulphate soils and potential acid sulfate soils

d. Stream bank stability and impacts on macro invertebrates

e. Water quality and hydrology modelling and/or monitoring, where necessary

B. The proposed monitoring of water quality must be undertaken in accordance with the Approved Methods for the Sampling and Analysis of Water Pollutant in NSW 2022 The EIS must include a water quality and aquatic ecosystem monitoring program that includes:

a. Adequate data for evaluating maintenance, or progress towards achieving, the relevant Water Quality Objectives

b. measurement of pollutants identified or expected to be present

National Parks and Wildlife Estate

21. The EIS must identify and assess:

a. In the case of a project that adjoins land reserved under Part 4 of the NPW Act, ensure no encroachment of assets or ancillary infrastructure occurs, and the project is restricted to the development site and adequately buffered from the reserve.

b. In the case of a project that adjoins, is in the immediate vicinity of, or upstream of land reserved under the NPW Act, ensure the matters outlined in the *Developments adjacent to National Parks and Wildlife Service lands - Guidelines for consent and planning authorities (DPIE 2020)* are adequately considered and include:

   i. recognition of the natural, cultural and social values attached to that land. The *Burrinjuck Nature Reserve Plan of Management* should be considered in the assessment of these values.

   ii. recognition of the impacts, including direct, indirect and cumulative impacts as they relate to the environmental values of that land, its location, and greater landscape connectivity

   iii. extent of the direct, indirect and cumulative impacts on that land

   iv. duration of the direct, indirect and cumulative impacts on the interface, the greater environmental values and the reserves connectivity in the landscape to other reserved land.

c. Measures proposed to prevent, control, abate, minimise and manage the direct and indirect impacts including an evaluation of the proposed measures effectiveness and reliability over the life of the project.

d. Acknowledgement that noise levels above 40dB(A) has the potential to impact on wildlife occupying NPWS estate. Areas of park are to be treated as a 'sensitive receiver' for the purposes of noise level management. If exceedance occurs, impacts on biodiversity values will need to be assessed in more detail.

e. Risks and increased restrictions imposed to land management operations undertaken by NPWS as a result of the proposed windfarm project, especially in the use of low flight aircraft for aerial pest baiting, weed spraying, firefighting, hazard reduction and search and rescue purposes. Justify compliance with Civil Aviation Safety Authority (CASA) regulations. Consult with NPWS when assessing this.

f. Bushfire protection requirements attached to the proposed windfarm project ensuring they are restricted to the development site, and all ignition threats relating to the

project are identified and planned for within the confines of the development site. No fire management is to affect, burden or threaten land that is reserved under Part 4 of the NPW Act.

g. Identification of any interference to the functionality and operation of telecommunication systems used by NPWS and establishment of a working relationship with NPWS to effectively resolve any communication issues with RF links or mobile radio through the life of the project.

Attachment C – Guidance Material

Title	Web address
Relevant Legislation	
Biodiversity Conservation Act 2016	https://www.legislation.nsw.gov.au/#/view/act/2016/63/full
Coastal Management Act 2016	https://www.legislation.nsw.gov.au/#/view/act/2016/20/full
SEPP (Resilience and Hazards) 2021	https://legislation.nsw.gov.au/view/whole/html/inforce/current/epi-2021-0730
Commonwealth Environment Protection and Biodiversity Conservation Act 1999	https://www.legislation.gov.au/Series/C2004A00485
Environmental Planning and Assessment Act 1979	https://legislation.nsw.gov.au/view/html/inforce/current/act-1979-203
Fisheries Management Act 1994	https://legislation.nsw.gov.au/view/html/inforce/current/act-1979-203
Marine Estate Management Act 2014	https://legislation.nsw.gov.au/view/html/inforce/current/act-2014-072
National Parks and Wildlife Act 1974	https://legislation.nsw.gov.au/view/html/inforce/current/act-1974-080
Protection of the Environment Operations Act 1997	https://legislation.nsw.gov.au/view/html/inforce/current/act-1997-156

Title	Web address
Water Management Act 2000	*https://legislation.nsw.gov.au/view/html/inforce/current/act-2000-092*
Wilderness Act 1987	*https://legislation.nsw.gov.au/view/html/inforce/current/act-1987-196*
Biodiversity	
Biodiversity Assessment Method 2020 & assessor resources (including legislation, manuals, BDAR templates, survey guidelines, registers and databases)	*https://www.environment.nsw.gov.au/research-and-publications/publications-search/biodiversity-assessment-method-2020* *https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/accredited-assessors/assessor-resources*
Guidance to assist a decision maker to determine a serious and irreversible impact	*https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/guidance-decision-makers-determine-serious-irreversible-impact-190511.pdf*
Policy and guidelines for fish habitat conservation and management	*https://www.dpi.nsw.gov.au/fishing/habitat/publications/pubs/fish-habitat-conservation*
List of national parks	*http://www.environment.nsw.gov.au/NationalParks/parksearchatoz.aspx*
Revocation, recategorisation and road adjustment policy	*https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-policies/revocation-recategorisation-and-road-adjustment*

Title	Web address
Guidelines for developments adjacent to national parks and other reserves	https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/development-guidelines
SEED Data Portal (access to online spatial & environmental data)	http://seed.nsw.gov.au/
Conservation lands	
Guidelines for developments adjacent to NPWS managed lands	https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/development-guidelines
National parks and other lands managed by NPWS	List *https://www.nationalparks.nsw.gov.au/visit-a-park* Spatial data *https://datasets.seed.nsw.gov.au/dataset/npws-all-managed-land* Recategorisation & adjustments https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-policies/revocation-recategorisation-and-road-adjustment
Water and Soils	
Water	
Water Quality Objectives	http://www.environment.nsw.gov.au/ieo/index.htm

Title	Web address
Australian and New Zealand Guidelines for Fresh and Marine Water Quality	https://www.waterquality.gov.au/anz-guidelines
Water Quality Guidelines Mixing zones	https://www.waterquality.gov.au/anz-guidelines/resources/key-concepts/mixing-zones
Approved methods for the sampling and analysis of water pollutants in NSW (2022)	https://www.epa.nsw.gov.au/licensing-and-regulation/licensing/environment-protection-licences/licensing-under-poeo-act-1997/licensing-to-regulate-water-pollution/approved-methods-for-sampling-and-analysing-water-pollutants
Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions.	https://www.environment.nsw.gov.au/research-and-publications/publications-search/risk-based-framework-for-considering-waterway-health-outcomes-in-strategic-land-use-planning
Soils	
Acid Sulfate Soils Planning Maps via Data.NSW	http://data.nsw.gov.au/data/
Acid Sulfate Soils Manual (Stone et al. 1998)	http://www.environment.nsw.gov.au/resources/epa/Acid-Sulfate-Manual-1998.pdf

Title	Web address
National Acid Sulfate Soils Guidance: National acid sulfate soils identification and laboratory methods manual, Department of Agriculture and Water Resources, Canberra, ACT. (Sullivan, L, Ward, N, Toppler, N and Lancaster, G. 2018a).	*https://www.waterquality.gov.au/sites/default/files/documents/dewatering-acid-sulfate-soils.pdf*
National Acid Sulfate Soils guidance: National acid sulfate soils sampling and identification methods manual, Department of Agriculture and Water Resources, Canberra ACT. (Sullivan, L, Ward, N, Toppler, N and Lancaster, G. 2018b).	*https://www.scu.edu.au/media/scueduau/eal/documents/National-acid-sulfate-soils-sampling-and-indentification-methods-manual.pdf*

Title	Web address
National Acid Sulfate soils Guidance: Overview and management of monosulfidic black ooze (MBO) accumulations in waterways and wetlands, Department of Agriculture and Water Resources, Canberra ACT. (Sullivan, LA, Ward, NJ, Bush, RT, Toppler, NR, Choppala, G. 2018c)	https://www.scu.edu.au/media/scueduau/eal/documents/Overview-and-management-of-monosulfidic-black-ooze-MBO-accumulations-in-waterways-and-wetlands.pdf
National Acid sulfate soils guidance: Guidelines for the dredging of acid sulfate soil sediments and associated dredge spoil management, Department of Agriculture and Water Resources, Canberra, ACT (Simpson, SL, Mosley, L, Batley, GE and Shand P. 2018).	https://www.waterquality.gov.au/sites/default/files/documents/dredging-sediments-spoil.pdf

Title	Web address
National Acid Sulfate Soils Guidance: Guidance for the dewatering of acid sulfate soils in shallow groundwater environments, Department of Agriculture and Water Resources, Canberra, ACT. (Shand, P, Appleyard, S, Simpson, SL, Degens, B, Mosley, LM 2018)	https://www.waterquality.gov.au/sites/default/files/documents/dewatering-acid-sulfate-soils.pdf
Flooding and Coastal Hazards	
Coastal management	https://www.environment.nsw.gov.au/topics/water/coasts/coastal-management
Floodplain development manual	https://www.environment.nsw.gov.au/topics/water/floodplains/floodplain-manual
Coastal Management Manual	https://www.environment.nsw.gov.au/topics/water/coasts/coastal-management/manual
NSW Climate Impact Profile	http://climatechange.environment.nsw.gov.au/
Floodplain Risk Management Guidelines	http://www.environment.nsw.gov.au/topics/water/coasts-and-floodplains/floodplains/floodplain-guidelines
Australian Rainfall and Runoff: A Guide to Flood Estimation	http://arr.ga.gov.au/

Title	Web address
Marine and Coastal ecology	
Marine Estate Management Strategy	https://www.marine.nsw.gov.au/marine-estate-programs/marine-estate-management-strategy
NSW Marine Estate Threat and Risk Assessment	https://www.marine.nsw.gov.au/marine-estate-programs/threat-and-risk-assessment
National Light Pollution Guidelines for Wildlife including Marine Turtles, Seabirds and Migratory Shorebirds	https://www.dcceew.gov.au/environment/biodiversity/publications/national-light-pollution-guidelines-wildlife
NSW Marine Protected Areas	https://www.marine.nsw.gov.au/your-marine-estate/marine-protected-areas