Appendix A Legislation



A.1 Commonwealth

A.1.1 Aboriginal and Torres Strait Islander Heritage Protection Act 1984

The Aboriginal and Torres Strait Islander Heritage Protection Act 1984 preserves and protect areas (especially sacred or intangible sites) and places of particular significance to Aboriginal people from damage or destruction. Steps necessary for the protection of a threatened place are outlined in a gazetted Ministerial Declaration (sections 9 and 10) and which can result in a cessation of any development activity.

In addition, the Act also protects objects by Declaration, notably Aboriginal skeletal remains (section 12). This can be applied at a State level where a State is unwilling or unable to provide such protection.

A.1.2 Environment Protection and Biodiversity Conservation Act 1999

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) provides for protection of natural and cultural heritage places. The EPBC Act establishes a National heritage list (NHL) and a Commonwealth heritage list (CHL) upon which places of natural or cultural significance can be listed. Sites at a national level and can be in public or private ownership. The CHL is limited to places owned by the Commonwealth, and most frequently encompass Department of Defence sites. Sites and places listed on the NHL are considered to be of State and local heritage value, even if they are not listed or documented as such at a State level.

The values of sites and places on the NHL/CHL are protected under the EPBC Act. The EPBC Act requires that the Minister administering the EPBC Act assess any action which has, will have, or is likely to have, a significant impact on the heritage values. Where relevant, a referral is made to the relevant Commonwealth Department, and either approval, approval with controls, or rejection of the proposed action is determined.

A.1.3 Native Title Act 1993

The *Native Title Act* 1993 provides recognition and protection for native title. The Act establishes the managing body, National Native Title Tribunal, who administers native title claims to rights and interests over lands and waters by Aboriginal people. It also administers the future act processes that allow proponents to identify and manage potential native title issues for a given activity on a site where a claim has yet to be made or finalised.

In addition, the Act provides for Indigenous land use agreements (ILUA), which is an agreement between a native title group and others about the use and management of land and waters. ILUAs were introduced as a result of amendments to the Act in 1998. They allow people to negotiate flexible and bipartisan agreements to suit their particular circumstances often circumventing lengthy timeframes associated with the native title process. An ILUA can be negotiated over areas where native title has, or has not yet, been determined. They can be part of a broader determination or settled separately.

A.2 State

A.2.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) is the over-arching Act that dictates the nature of assessment and management of the environment during a development project, and within which heritage forms a component. The EP&A Act requires that environmental and heritage impacts are considered by consent authorities prior to granting development approvals.

The EP&A Act has 2 main approval pathways within which heritage needs to be considered. Generally, for smaller scale (either financially or spatially), Parts 4 (Division 4.1) and 5 (Division 5.1) of the EP&A Act are implemented. Part 4 requires that a proponent submits a development application (DA) to local council for a given development, and within this document a consideration of Aboriginal and historical heritage is required. The specific nature of the assessment is usually determined at a pre-DA meeting with the council, and in relation to the relevant heritage Acts. Where impacts to Aboriginal heritage are identified, the DA may become Integrated Development, whereby the State government is also required to review and provide comments on the DA prior to its issue. Part 5 of the EP&A Act is a similar process but only relates to approvals developed and issued by public authorities. Each authority has their own internal approach to considering environmental issues but ultimately must develop a review of environmental factors (REF), which is comparable to a DA, and which requires consideration and management of heritage. Similarly, where impacts to heritage are identified, liaison with relevant State consent authorities and approvals under other Acts may still be required.

The other approval pathway relates to State significant development (SSD) and/or infrastructure (SSI) (Divisions 4.7 and 5.2, respectively). These processes require an environmental impact statement (EIS) to be developed for a project and assessed currently by the Department of Planning, Housing and Infrastructure. Importantly, the SSD and SSI processes turns off a number of pieces of other legislation, including parts of the *National Parks and Wildlife Act 1974*. In the case of Aboriginal heritage, both the assessment and approval for harm are dictated by the Secretary's environmental assessment requirements (SEARs) outlining the contents and scope of the EIS, and the project Approval that dictates controls on how a development should proceed.

A.2.2 National Parks and Wildlife Act 1974

The *National Parks and Wildlife Act 1974* (NPW Act) provides protection for Aboriginal objects and places across NSW:

- An Aboriginal object is defined as: Any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction and includes Aboriginal remains.
- An Aboriginal place is: Any place declared to be an Aboriginal place under section 84. This is a very specific piece of legislation that provides process and management of Aboriginal sites of cultural, but not necessarily scientific, values. They are commonly, but not always associated with intangible values.
- Any place declared to be an Aboriginal place by the Minister for the Environment, under section 84 of the NPW Act.

It is an offence to disturb Aboriginal objects or places without an Aboriginal heritage impact permit (AHIP), which is outlined in section 90 of the NPW Act. Currently, such permits can be sought from the Secretary of the NSW Department of Climate Change, Energy, the Environment and Water.

To obtain an AHIP, certain assessment and documentation (outlined in this report) must be provided to DPC for their consideration. Once satisfied, they may endorse an AHIP to harm cultural heritage either conditionally or unconditionally. They can also refuse an application as outlined in section 90C of the NPW Act, and which can be appealed in accordance with section 90L. An AHIP is not required for SSD or SSI projects.

A.2.3 Aboriginal Land Rights Act 1983

The Aboriginal Land Rights Act 1983 provides process and protocols for the transfer of vacant Crown land ownership to a Local Aboriginal Land Council (LALC), where the land is not for an essential purpose or for residential land. These lands are then managed and maintained by the LALC.

For the purposes of this report, the Act is primarily important to inform relevant Aboriginal communities for consultation and where Crown lands form part of the development area may require additional liaison with the LALC as a potential, or existing, landowner.

Appendix B
Aboriginal community consultation



B.1 Consultation log and communications records

The following pages document all interactions with stakeholders undertaken as part of the assessment.

This section has been redacted from this report due to privacy reasons.
Please contact EMM Consulting Pty Limited to request a copy.

B.2 List of identified Aboriginal stakeholders

The following lists all potential Aboriginal stakeholders as identified as part of the Government Agency Pre Notification stage:

- A1 Indigenous Services
- Aboriginal Native Title Consultants
- AGA Services
- Aliera French Trading
- Amanda Hickey Cultural Services
- Arwarbukarl Cultural Resource Association, Miromaa Aboriginal Language and Technology Centre
- Awabakal & Guringai Pty Ltd
- Awabakal Descendants Traditional Owners
- Awabakal LALC
- Awabakal Traditional Owners Aboriginal Corporation
- Bahtabah Local Aboriginal Land Council
- Bara Barang Corporation Pty Ltd
- Bathurst Local Aboriginal Land Council
- Bill Trewlynn
- Biraban LALC
- Cacatua Culture Consultants
- Carol Ridgeway-Bissett
- Corroboree Aboriginal Corporation
- Crimson-Rosie
- Culturally Aware
- Daniella Chedzey, Jessica Wegener
- Darkinjung LALC
- Deslee Talbott Consultants
- DFTV Enterprises
- Didge Ngunawal Clan

- Gali Heritage Consultants
- Gidawaa Walang & Barkuma Neighbourhood Centre Inc.
- Gilay Consultants
- Girragirra Murun Aboriginal Corporation
- Glen Morris
- Gomeroi People (c/- NTSCORP Ltd)
- Gomery Cultural Consultants
- Gomeroi Namoi Traditional Owner (Steve Talbott)
- Gunjeewong Cultural Heritage Aboriginal Corporation
- Guringai Tribal Link Aboriginal Corporation
- Guthers Aboriginal Corporation
- Hunter Traditional Owner
- Hunter Valley Aboriginal Corporation
- Hunter Valley Cultural Surveying
- Hunters & Collectors
- Indigenous Learning
- Jarban & Mugrebea
- Jumbunna Traffic Management Group Pty Ltd
- Kamilaroi Yankuntjatjara Working Group
- Karuah Local Aboriginal Land Council
- Kauma Pondee Inc.
- Kawul Pty Ltd trading as Wonn1 Sites
- Kevin Duncan
- Konanggo Aboriginal Cultural Heritage Services
- Kyle Howie
- Long Gully Cultural Services
- Lower Hunter Aboriginal Incorporated

- Lower Hunter Wonnarua Cultural Services
- Lower Hunter Wonnarua Cultural Services
- Lower Wonnaruah Tribal Consultancy Pty Ltd
- Marrung-Ta Aboriginal Corporation
- Mayaroo
- Metropolitan Local Aboriginal Land Council
- Mindaribba LALC
- Murra Bidgee Mullangari Aboriginal Corporation
- Myland Cultural & Heritage Group
- Nunawanna Aboriginal Corporation
- Pearl Depoma
- Phillip Pullbrook
- Renee Sales
- Robert Syron
- Scott Franks on the behalf of the Wonnarua PBC Yarrawalk Pty Ltd/Tocomwall
- Sharon Hodgetts
- Tamara Towers
- The Men's Shack Indigenous Corporations
- Thomas Dahlstrom
- Tim Selwyn
- Trent Hodgetts
- Trudy Smith
- Ungooroo Aboriginal Corporation
- Wallagan Cultural Services
- Wanaruah LALC
- Warragil Cultural Services
- Wattaka Wonnarua Cultural Consultants

- Widescope Indigenous Group
- Wingarra Wilay Aboriginal Corporation
- Woka Aboriginal Corporation
- Wonnarua Culture Heritage
- Wonnarua Elders Council
- Wonnarua Elders Council/Upper Hunter Wonnarua Council Incorporated
- Wonnarua Nation Aboriginal Corporation
- Worimi Conservation Lands
- Wurrumay Pty Ltd
- Yinarr Cultural Services
- Yurwang Gundana Consultancy Cultural Heritage Services.
- Yvette and Jackson Walker
- Worimi Conservation Lands

B.3 List of registered Aboriginal parties

Table B.1 presents the Aboriginal individuals and/or organisations who registered an interest in the project and other relevant information.

 Table B.1
 Registered Aboriginal parties

Organisation	Date of registration	Location	Areas of interest within the project impact area
A1 Indigenous Services	06-Dec-23		Not specified
AGA Services	12-Dec-23		Not specified
Aliera French Trading	12-Apr-24		Not specified
Amanda Hickey Cultural Services	26-Feb-24		Not specified
AT Gomeroi	27-Mar-24		Not specified
Awabakal and Guringai Pty Ltd	23-Nov-23		Not specified
Awabakal Descendants Traditional Owners	15-Dec-23		Not specified
Awabakal LALC	10-Nov-23		HTP Central/HTP South
Awabakal Traditional Owners Aboriginal Corporation	23-Nov-23		HTP Central/HTP South
Bara Barang Corporation Pty Ltd	-		Not specified
Bawurra	12-Dec-23		HTP Central
Biraban LALC	10-Nov-23		HTP South
Cacatua Culture Consultants	12-Dec-23		Not specified
Darkinjung LALC	10-Nov-23		HTP South
DFTV Enterprises	30-Nov-23		Not specified
Didge Ngunawal Clan	30-Nov-23		Not specified
Girragirra Murun Aboriginal Corporation	01-Dec-23		Not specified
Gomery Cultural Consultants	30-Nov-23		Not specified
Gunjeewong Cultural Heritage Aboriginal Corporation	04-Dec-23		Not specified
Hunters & Collectors	07-Dec-23		HTP North
Jarban & Mugrebea	07-Dec-23		Not specified
Kawul Pty Ltd trading as Wonn1 Sites	30-Nov-23		Not specified
Kevin Duncan	10-Nov-23		Not specified
Kiray Putjung Aboriginal Corporation	13-Dec-23		HTP Central
Long Gully Cultrual Services	04-Dec-23		Not specified
Lower Hunter Aboriginal Incorporated	29-Nov-23		Not specified
Lower Hunter Wonnarua Cultural Services	N/A		Not specified
Marrung-Ta Aboriginal Corporation/Culturally Aware	30-Nov-23		HTP Central

Organisation	Date of registration	Location	Areas of interest within the project impact area
Mindaribba LALC	10-Nov-23		Not specified
Miromaa Aboriginal Language and Technology Centre	30-Nov-23		Not specified
Murra Bidgee Mullangari Aboriginal Corporation	11-Dec-23		Not specified
Nunawanna Aboriginal Corporation	30-Nov-23		Not specified
Renee Sales	11-Dec-23		Not specified
Robert Syron	10-Nov-23		Not specified
Namoi Gomeroi Traditional Owner	23-Nov-23		Not specified
Thomas Dahlstrom	30-Nov-23		Not specified
Tocomwall/Yarrwalk	09-Nov-23		Not specified
Trudy Smith	30-Nov-23		Not specified
Ungooroo Aboriginal Corporation	30-Nov-23		Not specified
Wallagan Cultural Services	07-Dec-23		HTP Central
Wanaruah LALC	10-Nov-23		Not specified
Warren Taggart	13-Dec-23		Not specified
Wattaka Wonnarua Cultural Consultants	N/A		Not specified
Widescope Indigenous Group	05-Dec-23		Not specified
Wingarra Wilay Aboriginal Corporation	01-Dec-23		Not specified
Wonnarua Elders Council/Upper Hunter Wonnarua Council Incorporated	11-Dec-23		Not specified
Wonnarua Nation Aboriginal Corporation	30-Nov-23		Not specified
Yurwang Gundana Consultancy Cultural Heritage Services	07-Dec-23		Not specified

B.4 List of key registered Aboriginal parties

Through a process of early Aboriginal engagement and co-design processes, a core group of the registered Aboriginal parties was developed by the Hunter Transmission Project (HTP, the project), which was consulted on all key assessment activities within this report (including Aboriginal focus group meetings, field survey, cultural values mapping study and test excavations). This group was modified throughout the project as Aboriginal individuals and/or organisations were considered by the established panel for inclusion.

The individuals and/or organisations included:

- HTP North
 - A1 Indigenous Services
 - Aliera French Trading
 - Amanda Hickey Cultural Services
 - Long Gully Cultural Services
 - Thomas Dahlstrom Consulting
 - Tocomwall
 - Uncle Warren Taggart
 - Ungooroo Aboriginal Corporation
 - Wanaruah LALC
 - Wattaka Wonnarua Cultural Consultants
 - Widescope Indigenous Group
 - Wonn1 Consulting
 - Wonnarua Elders Council/Upper Hunter Wonnarua Council Incorporated
 - Wonnarua Nation Aboriginal Corporation
- HTP Central
 - Awabakal Descendants Traditional Owners Aboriginal Corporation
 - Awabakal LALC
 - Bawurra
 - Biraban LALC
 - Cacatua Culture Consultants/AGA Services
 - Culturally Aware/Marrung-Ta Aboriginal Corporation
 - Kiray Putjung Aboriginal Corporation

- Mindaribba LALC
- Namoi Gomeroi Traditional Owner (Steve Talbott)
- Wonn1 Consulting

HTP South

- Awabakal Descendants Traditional Owners Aboriginal Corporation
- Awabakal & Guringai Pty Ltd
- Awabakal Traditional Owners Aboriginal Corporation
- Biraban LALC
- Darkinjung LALC
- Lower Hunter Aboriginal Incorporated
- Renee Sales

B.5 Stage 1 – Notification and registration

The following pages document all correspondence distributed and received as part of Stage 1 of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010).

This section has been redacted from this report due to privacy reasons.
Please contact EMM Consulting Pty Limited to request a copy.

B.6 Stages 2 and 3 – Presentation of information and gathering cultural information

The following pages document all correspondence distributed and received as part of Stage 2 and Stage 3 of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010).

This section has been redacted from this report due to privacy reasons.
Please contact EMM Consulting Pty Limited to request a copy.

B.7 Stage 4 – Aboriginal stakeholder feedback on the draft ACHA

The following pages document all correspondence distributed and received as part of Stage 4 of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010).

This section has been redacted from this report due to privacy reasons.
Please contact EMM Consulting Pty Limited to request a copy.

B.8 Additional consultation

The following pages document all correspondence distributed as part of project updates.

This section has been redacted from this report due to privacy reasons.
Please contact EMM Consulting Pty Limited to request a copy.

Appendix C
Additional environmental information



C.1 Geotechnical bore logs

Table C.1 Geotechnical bore-logs (grey shading indicates alluvial units documented)

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHB14-ABE	Mount Nelinda Road	0-40	Topsoil – dark brown silty sand, fine-grained sand with roots and rootlets
		40-300	Residual soil:
			• 40–280 cm - orange-brown silty clay, medium plasticity, transitioning to fine-grained, pale grey silty sand at 80 cm below ground surface
			• 280–300 cm – grey silty clay, low plasticity, moist, dry of plastic limit
		>300	Bedrock - sandstone and conglomerate
BHB17-ABE	Freemans Drive	0-40	Fill – brown gravelly clay, low plasticity
		40-250	Residual soils:
			• 40–80 cm – brown medium grained, clayey silty sand
			• 80–180 cm – transitioning to pale grey mottled pale orange, medium to coarse grained, sandy silt
			• 180–250 cm – pale grey, fine to medium grained sandy silt with traces of fine gravel at 180 cm below ground surface
		>250	Bedrock - sandstone and siltstone
BHA04-BB	Lemington Road	0-150	Fill – brown to dark brown silty sandy clay transitioning to silty clayey sand at 60 cm below ground surface
		150-1330	Residual soil:
			• 150–230 cm – brown to red-brown silty sandy clay, medium plasticity
			• 230–1330 cm – brown to red brown silty clay, medium to high plasticity, with traces of fine to medium grained sand
		>1340	Bedrock - shale, siltstone and sandstone
BHA20.1-BB	Long Point Road	0-60	Fill – brown to dark brown silty sand, with rootlets and medium to coarse grained, sub-angular gravel
		60-130	Residual soil – pale brown to brown sand, fine grading to coarse grained with depth, sub-angular gravel in upper 60–100 cm
		>130	Bedrock – sandstone and mudstone

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHA22-BB	Gouldsville Road	0-120	Fill – brown to dark brown silty sand transitioning to silty clay
		120-400	Residual soil – brown to orange brown silty clay, medium to high plasticity, pale with depth
		>400	Bedrock - shale, mudstone, coal and sandstone
BHA27-BB	Broke Road	0-60	Fill – dark brown to brown silty sand, traces of medium plasticity clay, transitioning to sand, brown to red brown
		60-1000	Residual soil – orange brown to brown silty clay, medium to high plasticity
		>1000	Bedrock - mudstone
BHA32.1-BB	Cessnock Road	0-0.5	Asphalt
		0.5-50	Fill – brown to red brown medium grained gravelly sand
		50-560	 Residual soil: 50–120 cm – brown fine to medium grained sand, traces of fine to coarse grained, sub rounded gravel 120–180 cm – orange to orange brown medium to high plasticity silty clay 180–560 cm – red brown to orange brown medium to coarse grained clayey sand, traces of fine to medium grained, sub rounded gravel
		>560	Bedrock – sandstone
BHB05-ABE	Wollombi Road	0-150	Fill –brown to dark brown silty sand, traces of medium to high plasticity clay, transiting to silty clay brown to dark brown, traces of sub rounded gravels and cobbles
		150-1150	Alluvial soil:
			• 150–350 cm – dark brown silty sand, medium grained, traces of medium to high plasticity clay
			• 350–800 cm – transitioning to orange brown, brown and dark brown silty sand, sub rounded alluvial gravel, iron indurated bands
			• 800–1150 cm – change in colour to dark grey, orange brown and brown
		1150-1180	Residual soil – grey and orange brown silty clay, medium to high plasticity clay, mudstone gravels and iron indurated bands
		>1180	Bedrock – siltstone, sandstone

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHA19-BB	Paddocks near Long Point	0-30	Topsoil – olive brown medium plasticity silt, traces of medium plasticity clay, subrounded gravel
	Road	30-250	Residual soil –
			• 30–230 cm – brown to dark brown silty clay, traces of fine-grained sand with traces of subangular mudstone gravels between 230 cm and 250 cm below ground surface
		>250	Bedrock – mudstone, sandstone, coal, siltstone
BHA19.1-BB	Paddocks near Long Point	0-40	Fill – brown to pale brown fine-grained silty sand, with traces of subrounded gravels
	Road	40-200	Residual soil – olive brown and olive silty clay, medium to high plasticity
		>200	Bedrock – siltstone, sandstone
BHA20-BB	Paddocks near Long Point Road	0-20	Topsoil – brown medium plasticity sandy silt, fine-grained sand, subangular gravels, with rootlets
		20-900	Alluvial soil:
			• 20–250 cm – dark brown to brown silty clay, low to medium plasticity, subangular gravels
			• 250–700 cm – brown, dark brown and olive brown silty clay, medium to high plasticity, subangular gravels
			• 700–900 cm – brown and orange brown silty sand, fine to medium grained increasing in size at 800 cm with traces of medium plasticity clay
		900-1040	Residual soil – dark grey silty clay, medium to high plasticity, subangular mudstone gravels
		>1040	Bedrock – mudstone, sandstone, siltstone
BHA01-BB	AGL Bayswater power station	0-10	Topsoil/fill – grey to brown silty sand, fine to medium grained, fine subangular to subrounded gravel, traces of rootlets
		10-165	Residual soil:
			• 10–80 cm – orange to red to pale grey clayey sand, fine to medium grained sand, low to medium plasticity clay, traces of fine to medium subangular to angular ironstone gravel and silt, overlying
			• 80–149 cm –pale grey mottled orange clayey sand with indistinct rock fabric present
			• 149–165 cm -pale grey to grey sandy clay, fine-grained sand and fine subangular gravel
		>165	Bedrock - siltstone

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHA02-BB	AGL Bayswater power	0-40	Topsoil – red brown sandy clay, fine to medium grained sand, medium plasticity, traces of fine angular gravel
	station		Residual soil:
			• 40–100 cm – pale orange sandy silt with fine sand overlying
			• 100–250 cm – pale orange and pale grey sandy silt with indistinct rock fabric observed
			• 250–350 cm – orange to brown mottled pale grey sand, fine-grained, traces of medium plasticity clay with indistinct rock fabric observed
		>350	Bedrock – siltstone, sandstone, mudstone
BHA09-BWS	AGL Bayswater power station	0-10	Topsoil/fill – grey to brown silty sand, fine to medium grained, traces of subangular gravel and rootlets
		10-302	Residual soil:
			• 10–230 cm – orange to brown sandy clay, low to medium plasticity, fine-grained sand, fine subangular ironstone gravel overlying
			 230–302 cm – pale grey mottled orange sandy clay, low to medium plasticity, fine-grained sand, indistinct rock fabric present
		>302	Bedrock - siltstone
BHA23-BB	Near Jerry's Plains Road (Yancoal)	0-30	Topsoil – dark grey medium plasticity sandy silt, fine-grained sand with rootlets
		30-1685	Alluvial soil:
			• 30–1050 cm – dark brown and brown silty clay, medium to high plasticity clay, subangular gravel
			• 1050–1250 cm – dark brown and brown silty clayey sand, medium to coarse grained sand, subrounded alluvial gravel
			• 1250–1685 cm – brown, grey and dark grey sandy gravel, medium to coarse grained sand, subrounded gravel and cobbles
		>1685	Bedrock – siltstone, coal

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHA24-BB	Near Jerry's Plains Road	0-15	Topsoil – brown medium plasticity sandy silt, traces of rootlets and subangular gravel
	(Yancoal)	15-1050	Alluvial soil:
			• 15–550 cm – brown sandy silty clay, medium plasticity, fine to medium grained sand with subangular gravel
			• 550–800 cm – brown silty clayey sand, medium to coarse grained, fine subangular gravel
			• 800–1050 cm –brown, dark grey to dark brown sandy gravel, medium to coarse grained sand, traces of subrounded cobbles
		>1050	Bedrock - siltstone
BHB03-ABE	Lovell Capital	0-10	Topsoil – grey silty sand, fine to medium grained, traces of low plasticity clay, sub angular gravel and rootlets
		10-130	Residual soil – silty clay, pale grey to orange mottled red, medium plasticity, traces of fine subangular ironstone gravel and rootlets, indistinct rock present
		>130	Bedrock – siltstone, conglomerate, sandstone
BHA02-BWS	AGL Bayswater power	0-10	Topsoil/fill – dark grey to brown silty sand, fine to medium grained sand, traces of subangular gravels and rootlets
	station	10-461	Residual soil:
			• 10–170 cm – brown to orange clay, low to medium plasticity, with fine-grained sand increasing at depth
			• 170–350 cm – brown to orange mottled pale grey and red silty sandy clay, fine-grained sand with iron staining
			 350–461 cm – orange to red mottled pale grey silty sandy clay, low to medium plasticity clay, fine-grained sand, distinct rock fabric present
		>461	Bedrock - siltstone
BHA03-BWS	AGL Bayswater power station	0-20	Fill – orange to brown silty sand, fine to medium grained sand, low to medium plasticity clay, moderately to well compacted, traces of subangular gravel
		20-160	Residual soil – orange to brown silty clay, transitioning to grey to orange to brown at 120 cm and brown to orange at 150 cm below ground surface, low to medium plasticity, fine-grained sand with traces of subangular ironstone gravel at 70 cm, distinct rock fabric present from 120 cm
		>160	Bedrock - siltstone

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHA04-BWS	AGL Bayswater power station	0-10	Topsoil/fill – grey to brown silty sand, poorly to moderately compacted, fine to medium grained sand with low to medium plasticity clay, traces of subangular gravel and rootlets
		10-555	Residual soil:
			• 10–170 cm – orange to brown mottled red silty clay, low to medium plasticity clay, traces of fine-grained sand increasing at 100 cm, traces of rootlets
			• 170–350 cm – brown to orange mottled grey and red sandy silty clay, fine-grained sand with traces of subangular ironstone gravel
			• 350–500 cm – orange to red brown silty clay, low to medium plasticity clay with sand, occasional carbonaceous flecks at 420 cm
			• 500–555 cm – grey to brown to red silty clay, low to medium plasticity clay, traces of fine-grained sand, distinct rock fabric present
			No data between 555-566 cm
		>566	Bedrock - siltstone
BHA05-BWS	AGL Bayswater power station	0-10	Topsoil/fill – dark grey to brown silty sand, poorly to moderately compacted with fine to medium grained sand, low to medium plasticity clay, rootlets
		10-178	Residual soil:
			• 10–50 cm – orange to brown silty clay, low to medium plasticity with fine-grained sand, traces of subangular to angular ironstone gravel and rootlets
			• 50–178cm – orange mottled pale grey silty clay, low to medium plasticity with traces of fine-grained sand, distinct rock fabric present
		>178	Bedrock - siltstone
BHA14-BWW	AGL Bayswater power station	0-20	Topsoil – dark grey to brown clayey sand, fine to medium grained sand, low to medium plasticity clay with silt and rootlets
		20-40	Alluvial soil – grey to brown sandy clay, low to medium plasticity, fine to medium grained sand with silt, traces of rootlets
		40-135	Residual soil – orange to brown mottled grey clayey sand transitioning to orange brown at 80 cm, fine to medium grained sand, low to medium plasticity clay with silt, traces of subangular gravel and distinct rock present from 80 cm
		>135	Bedrock - sandstone

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHA28-BB	Glencore Bulga	0-10	Topsoil/fill – brown to grey silty sand, fine to medium grained with traces of low to medium plasticity clay and subangular gravel, rootlets present
		10-70	Alluvial soil – orange to brown clayey sandy silt, fine-grained sand and low to medium plasticity clay, clay content increasing at 50 cm
		70-258	Residual soil:
			 70–150 cm – orange to brown silty clay, low to medium plasticity with fine-grained sand, distinct rock fabric observed at 120 cm
			No data between 150-181 cm
			• 181–250 cm – orange to brown clayey sand, fine to coarse grained sand, low to medium plasticity clay, traces of fine subrounded gravel
			No data between 250-258 cm
		>258	Bedrock - siltstone
BHA28.1-BB	Glencore Bulga	0-10	Topsoil/fill – pale grey to orange silty sand, with fine to medium grained sand, fine to coarse gravel, traces of medium plasticity clay, poorly to moderately compacted
		10-300	Residual soil – orange to brown silty clay transitioning to red to brown at 70 cm and grey to orange at 190 cm below ground surface, medium to high plasticity, traces of fine-grained sand with subangular ironstone gravel present at 70 cm and distinct rock fabric present from 190 cm
		>300	Bedrock - siltstone
BHA28.2-BB	Glencore Bulga	0-20	Topsoil/fill – brown to orange sandy clay, poorly to moderately compacted, low to medium plasticity, fine-grained sand, traces of subangular gravel and rootlets present
		20-300	Fill:
			• 20–200 cm – brown to orange mottled pale brown silty clay transitioning to brown to orange mottled grey at 80 cm below ground surface, moderately compacted, medium plasticity, fine-grained sand with traces of subangular gravel and rootlets
			• 200–300 cm – dark brown to orange silty sandy clay transitioning to brown to yellow at 270 cm, fine-grained sand transitioning to medium grained at 270 cm, medium plasticity, subangular gravel present and organic material of roots and rootlets present at 270 cm

Borehole	Location	Depth below ground surface (cm)	Interpretation
		300-506	Alluvial soil:
			• 300–340 cm – orange to brown mottled pale grey silty clay, medium plasticity and traces of fine-grained sand
			• 340–390 cm – orange to brown silty sand, fine to medium grained sand, poorly graded
			• 390–450 cm – orange to brown silty clay, low to medium plasticity, fine-grained sand, distinct rock fabric present with bands of grey, highly weathered siltstone
			No data between 450–471 cm
			 471–506 cm – orange to pale grey silty clay, medium plasticity, traces of fine-grained sand, distinct rock fabric present with bands of highly weathered siltstone
		>506	Bedrock - siltstone
BH31-B1	AGL Bayswater power station	0-10	Fill – orange to brown silty sandy clay, low to medium plasticity, fine-grained sand, traces of fine to medium grained subangular basalt gravel, and rootlets
		10-300	Residual soil:
			• 10–70 cm – orange to red to brown silty clay, medium plasticity, fine-grained sand
			• 70–170 cm – pale brown to grey to orange clayey sandy silt, low to medium plasticity, fine-grained sand
			• 170–300 cm – red to brown silty clay, low to medium plasticity, fine-grained sand, distinct rock fabric observed
		>300	Bedrock - siltstone
BHB31-B2	AGL Bayswater power station	0-10	Fill – brown to red to orange silty clay, low to medium plasticity, fine-grained sand, traces of fine to medium, subangular basalt gravel
		10-150	Residual soil:
			• 10–70 cm – brown to orange silty sandy clay, low to medium plasticity, fine-grained sand
			• 70–130 cm – orange to pale grey clayey sandy silt, low to medium plasticity clay, fine-grained sand
			• 130–150 cm – pale grey to orange silty clay, low to medium plasticity, traces of fine-grained sand with distinct rock fabric observed
		>150	Bedrock - siltstone

Borehole	Location	Depth below ground surface (cm)	Interpretation
BH32-A1	AGL Bayswater power station	0-10	Topsoil/fill – brown to orange to grey silty sandy clay, low to medium plasticity, fine-grained sand with traces of fine to medium, subangular basalt gravel, rootlets present
		10-150	Residual soil:
			• 10–95 cm – brown to red to orange silty clay, transitioning to grey to brown to orange at 60 cm below ground surface, medium plasticity, traces of fine-grained sand
			• 95–150 cm – transitioning to grey to brown silty clay, medium plasticity, traces of fine-grained sand and fine, subangular gravel with distinct rock fabric observed
			No data between 150–161 cm
		>161	Bedrock - siltstone
BH32-A2	AGL Bayswater Power	0–10	Topsoil/fill – orange to brown silty clay, low to medium plasticity with fine-grained-sand and rootlets
	Station	10–550	Fill:
			• 10–90 cm – dark grey to brown sandy clay transitioning to grey to brown at 60 cm below ground surface, low to medium plasticity with fine-grained sand and silt, traces of fine to medium, subangular siltstone gravel and ceramic fragments
			• 90–250 cm – orange to pale brown mottled red and pale grey silty clay, medium plasticity, traces of fine-grained sand and fine, subangular siltstone gravel, layer of dark grey to grey siltstone cobbles and boulders present in upper 210-250 cm
			 250–550 cm – change in colour to orange to pale brown mottled pale grey in upper 250-290 cm transitioning to orange to brown to red with iron staining, becoming brown to orange to dark grey between 290-350 cm, siltstone cobbles and fine to medium, subangular gravel present at 380 cm
		550–1070	Residual soil:
			• 550–610 cm – dark grey to brown silty clay, medium plasticity with traces of fine-grained sand
			• 610–1070 cm – red to orange mottled grey silty clay transitioning to grey at 950 cm below ground surface, medium to high plasticity becoming low at 1010 cm, traces of fine-grained sand with subrounded to rounded gravel present in the upper 610-950 cm with iron staining and distinct rock fabric observed between 1010–1070 cm
		>1070	Bedrock - siltstone

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHA01-BWS	AGL Bayswater power station	0-10	Fill – orange to pale brown silty sandy clay, low to medium plasticity, fine-grained sand with fine to medium, sub angular to subrounded basalt gravel and traces of rootlets
		10–683	Residual soil:
			• 10–160 cm – orange to brown silty clay transitioning to brown to orange mottled red at 80 cm below ground surface and brown to orange mottled pale grey and red at 140 cm, medium plasticity, traces of fine-grained sand and iron staining
			• 160–296 cm – orange to red silty clay transitioning to a brown to pale grey mottled orange and red at 220 cm below ground surface, medium plasticity, traces of fine subangular ironstone gravel and distinct rock fabric observed between 220–296 cm.
			• 296–623 cm – pale grey to brown silty gravelly clay, medium plasticity, fine to coarse subangular to subrounded gravel, traces of fine to medium grained sand and extremely weathered conglomerate, with occasional bands of highly weathered siltstone
			• 623–683 cm – grey to pale brown clayey silt transitioning to brown to red at 640 cm below ground surface, low to medium plasticity clay, traces of fine-grained sand and roots and rootlets decreasing with depth
		>683	Bedrock - siltstone
BHA06-BWS	AGL Bayswater power station	0–10	Topsoil/fill – brown to orange to grey silty sandy clay, low to medium plasticity, fine-grained sand and traces of fine, subangular gravel, with rootlets
		10–156	Residual soil:
			• 10–135 cm - pale brown to orange to grey silty clay transitioning to red to brown to pale grey with iron staining at 80 cm below ground surface with traces of fine-grained sand and medium plasticity
			• 135–150 cm – grey to pale grey silty clay, medium plasticity, traces of fine-grained sand with distinct rock fabric observed
			No data between 150–156 cm
		>156	Bedrock - siltstone

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHA07-BWS	AGL Bayswater power station	0–10	Fill – orange to pale grey silty sandy clay, low to medium plasticity, fine-grained sand and fine to medium, subrounded to subangular gravel, moderately to well compacted
		10–229	Residual soil – orange to pale grey transitioning to orange at 60 cm below ground surface, low to medium plasticity, fine-grained sand with distinct rock fabric observed from 60 cm and traces of iron staining at 120 cm.
			No data between 150–229 cm
		>229	Bedrock - siltstone
BHA08-BWS	AGL Bayswater power station	0–10	Topsoil/fill – brown to grey silty clay, low to medium plasticity, fine-grained sand, traces of fine to medium, subangular basalt gravel, rootlets present, moderately compacted
		10–649	Fill:
			• 10–60 cm – brown to orange to dark grey silty clay, medium plasticity, traces of fine-grained sand and fine, subangular siltstone gravel, moderately compacted
			• 60–140 cm – grey to dark grey gravel, fine to coarse, subangular to angular gravel and siltstone, fine to coarse grained sand, moderately compacted
			• 140–240 cm – dark grey to brown gravelly clay, low to medium plasticity, fine to medium gravel with subangular siltstone and traces of fine sub angular quartz gravel, moderately compacted
			• 240–649 cm – dark grey to grey siltstone cobbles and boulders
		649–728	Residual soil – grey to pale grey to orange sandy clay, medium plasticity, fine to coarse grained sand with silt and traces of fine, subangular gravel, distinct rock fabric and extremely weathered rock observed at 705 cm
		>728	Bedrock - sandstone
BHA29.1-BB	Glencore Bulga	0–10	Topsoil/fill – orange to brown silty clay, medium to high plasticity, traces of fine-grained sand, rootlets present
		10–130	Residual soil:
			• 10–70 cm – orange to brown silty clay transitioning to orange to grey at 50 cm below ground surface, medium to high plasticity, fine-grained sand and traces of fine, subangular ironstone gravel
			• 70–130 cm – grey to orange silty clay, medium to high plasticity, traces of fine-grained sand with distinct rock fabric observed
		>130	Bedrock - siltstone

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHA30-BB	Glencore Bulga	0-10	Topsoil/fill – dark brown to brown silty clay, low to medium plasticity, fine-grained sand and rootlets, poorly to moderately compacted
		10–311	Residual soil:
			• 10–200 cm – dark brown to orange silty clay transitioning to brown to orange at 140 cm below ground surface, medium to high plasticity with traces of rootlets and fine, subangular ironstone gravel traces beginning at 140 cm
			• 200–311 cm – pale grey to mottled orange to red silty clay transitioning to brown to grey at 311 cm below ground surface, medium to high plasticity, distinct rock fabric observed and traces of fine to medium, subangular ironstone gravel present between 200 cm and 300 cm
		>311	Bedrock - siltstone
BHA30.1-BB	Glencore Bulga	0–20	Topsoil/fill – dark brown silty sandy clay, low to medium plasticity, fine-grained sand, rootlets present, poorly to moderately compacted
		20–570	Residual soil:
			• 20–250 cm - dark brown to orange silty clay transitioning to orange to brown at 50 cm and brown mottled orange at 180 cm below ground surface, medium plasticity, fine-grained sand, traces of rootlets in the upper 50 cm, traces of fine, subangular ironstone gravel and iron staining from 50 cm
			• 250–570 cm – pale grey mottled orange silty clay, transitioning to grey to pale grey mottled orange at 430 cm and grey at 480 cm below ground surface, medium to high plasticity with distinct rock fabric observed at 480 cm
		>570	Bedrock – interbedded siltstone and sandstone
BHB01.05-ABE	Pokolbin State Forest	0–10	Fill – pale brown to brown sand, fine to medium grained with fine to medium, subangular sandstone gravel, poorly graded and compacted with traces of silt
		10–40	Extremely weathered rock – pale brown to orange sand, fine to medium grained, traces of low to medium plasticity clay and silt, indistinct rock fabric observed
		>40	Bedrock - sandstone

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHB01.07-ABE	Pokolbin State Forest	0–10	Topsoil/fill – brown to dark brown clayey sand, fine to medium grained, poorly graded with low plasticity clay and silt, traces of fine to medium sub angular sandstone gravel, roots and rootlets present
		10–289	Residual soil/extremely weathered rock:
			• 10–100 cm – orange to brown sandy clay, medium plasticity, fine to medium grained sand, traces of silt and rootlets overlying
			• 100–150 cm – orange to pale grey to red clayey sand, fine to medium grained, low to medium plasticity clay, traces of silt with indistinct rock fabric observed with iron staining
			No date between 150–184 cm
			• 184–289 cm – orange to pale grey clayey sand, fine to medium grained, low to medium plasticity clay, traces of silt and indistinct rock fabric observed
		>289	Bedrock – sandstone, claystone, conglomerate
BHB02-ABE	Pokolbin State Forest	0–10	Topsoil/fill – brown to dark brown silty sand, fine to medium grained, poorly graded and compacted, traces of low plasticity clay and fine subangular sandstone gravel, roots and rootlets present
		10–30	Residual soil/extremely weathered rock – pale brown to brown sand, fine to medium grained, poorly graded, traces of silt and fine to coarse, subangular sandstone gravel, indistinct rock fabric observed
		>30	Bedrock – sandstone, siltstone
BHA34-BB	Pokolbin State Forest	0–10	Fill – brown to orange sandy clay, low to medium plasticity, fine-grained sand with silt, traces of rootlets and decomposed wood
		10–60	Residual soil/extremely weathered rock – orange to brown clay transitioning to orange to pale grey at 40 cm below ground surface, traces of fine-grained sand with indistinct rock fabric observed and iron staining from 40 cm
		>60	Bedrock – siltstone, sandstone
BHB01.02-ABE	Corrabare State Forest	0–10	Fill – brown to pale grey sand, fine to medium grained, poorly compacted, traces of low to medium plasticity clay, silt and rootlets
		10–50	Extremely weathered rock – orange to pale grey sand, fine to medium grained, traces of low to medium plasticity clay, silt, indistinct rock fabric observed
		>50	Bedrock – sandstone, siltstone

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHB01.04-ABE	Corrabare State Forest	0–10	Fill – brown to pale brown sand, fine to medium grained, poorly graded and compacted, traces of low to medium plasticity clay, silt and rootlets
		10–40	Extremely weathered rock – pale brown to orange sand, fine to medium grained, poorly graded, traces of low to medium plasticity clay, silt and indistinct rock fabric observed
		>40	Bedrock - sandstone
BHB06-ABE	Corrabare State Forest	0–10	Topsoil/fill – dark brown clayey sand, fine to medium grained, poorly graded, low to medium plasticity clay, roots and rootlets present
		10–100	Residual soil/extremely weathered rock:
			• 10–70 cm – dark brown to brown clayey sand transitioning to pale brown to brown at 50 cm below ground surface, fine to medium grained, low to medium plasticity clay, poorly graded overlying
			 70–100 cm – pale grey to pale brown clayey sand, fine to medium grained, low to medium plasticity clay, poorly graded, traces of fine to coarse subangular to angular sandstone gravel with indistinct rock fabric observed
		>100	Bedrock – sandstone, conglomerate
BHB08-ABE	Corrabare State Forest	0–20	Fill – pale grey to brown sand, fine to coarse grained, well graded and poorly compacted, fine to coarse subangular to angular sandstone gravel, traces of silt
		20–107	Residual soil/extremely weathered rock:
			• 20–80 cm – grey to brown silty clay, fine-grained sand, medium plasticity, indistinct rock fabric observed with traces of iron staining
			• 80–107 cm – pale brown to orange clayey sand, fine to coarse grained, low to medium plasticity clay, traces of fine subrounded gravel and silt, indistinct rock fabric observed
		>107	Bedrock – sandstone, siltstone

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHB07-ABE	Corrabare State Forest	0-10	Fill – pale brown to brown sand, fine to medium grained, poorly graded and compacted, traces of low to medium plasticity clay, silt and rootlets
		10–200	Residual soil/extremely weathered rock:
			• 10–140 cm – orange to pale brown silty clay transitioning to pale grey to pale brown at 100 cm below ground surface, medium plasticity and traces of fine-grained sand overlying
			• 140–200 cm – pale grey silty clay, medium plasticity, traces of fine-grained sand, indistinct rock fabric observed with trace iron staining
		>200	Bedrock - sandstone
BHB09-ABE	Corrabare State Forest	0–10	Topsoil/fill – brown silty sand, fine to medium grained, poorly graded and compacted, rootlets present
		10–170	Residual soil/extremely weathered rock:
			• 10–110 cm – brown to pale brown sand, transitioning to brown at 50 cm and pale grey to orange-red at 70 cm below ground surface, fine to medium grained, traces of fine subangular sandstone gravel, traces of low to medium plasticity clay, present at 70 cm overlying
			• 110–170 cm – pale brown to orange clayey sand, fine to medium grained sand, poorly graded, low to medium plasticity clay with indistinct rock fabric observed
		>170	Bedrock - sandstone

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHB10-ABE	Watagan State Forest	0–90	Fill – dark grey to dark brown sand, fine to medium grained, poorly graded, moderately compacted, trace silt, traces of fine to coarse subangular to sub rounded gravel with inclusions of sandstone cobbles (up to 80 mm), band of sandstone cobbles at 50–60 cm below ground surface
		90–790	Colluvial soil:
			• 90–290 cm – pale brown to grey silty sand transitioning to pale brown to grey to red at 190 cm below ground surface, fine to medium grained, traces of fine to medium grained subangular sandstone gravel with a band of sandstone cobbles in upper 130-140 cm
			• 290–422 cm – sandstone boulders with iron staining
			• 422–574 cm – brown to red clayey sand, fine to medium grained, low to medium plasticity, traces of fine to coarse subangular to angular sandstone gravel, inclusions of sandstone cobbles (up to 130 mm)
			• 574–639 cm – sandstone boulders
			• 652–700 cm – pale grey to orange sandy clay, medium plasticity, fine to medium grained sand, silt, traces of fine to coarse subangular sandstone gravel
			• 700–790 cm – red to pale grey to orange silty clay, medium plasticity, traces of fine-grained sand
		>790	Bedrock – siltstone, sandstone
BHB11.2-ABE	Watagan State Forest	0–20	Fill – brown silty sand, fine to medium grained, fine to medium subrounded to rounded gravel with roots and rootlets
		20–102	Residual soil/extremely weathered rock:
			• 20–75 cm – brown to orange silty clay transitioning to orange to pale brown at 50 cm below ground surface, high plasticity overlying
			• 75–102 cm – brown to pale brown silty sand, fine to medium grained, bands of highly weathered sandstone
		>102	Bedrock – sandstone, siltstone

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHB11.1-ABE	Watagan State Forest	0–10	Topsoil/fill – grey to brown silty sand, fine to medium grained, poorly graded, roots and rootlets present
		10–180	Alluvial soil:
			• 10–55 cm – orange to pale brown sand, fine to medium grained, silt, traces of fine to coarse angular gravel and rootlets
			• 55–180 cm – change in colour to grey to pale brown, traces of low to medium plasticity clay with increasing clay content, band of iron indurated sandstone between 150-180 cm below ground surface
		180–470	Residual soil:
			• 180–380 cm – pale grey to orange clayey sand, fine to medium grained, low to medium plasticity clay, fine to medium angular ironstone gravel
			• 380–470 cm – bands of iron indurated sandstone
		>470	Bedrock - sandstone
BHB11.5-ABE	Watagan State Forest	0–10	Topsoil/fill – brown to grey sand, fine to medium grained, traces of to medium plasticity clay, roots and rootlets present
		10–40	Fill – pale brown to grey sand, fine to medium grained, traces of low to medium plasticity clay and fine to coarse subangular to angular ironstone and sandstone gravel, trace rootlets
		40–332	Residual soil/extremely weathered rock:
			• 40–100 cm – orange to pale brown clayey sand, fine to medium grained, low plasticity clay with increasing clay content from 85 cm below ground surface, traces of fine to coarse angular ironstone gravel and rootlets
			• 100–190 cm – pale grey mottled red sandy clay, low to medium plasticity, fine to medium grained sand, silt
			• 190–310 cm – red to pale grey to orange silty sandy clay, low to medium plasticity, fine-grained sand, iron staining
			• 310–332 cm – pale grey to grey silty sandy clay, low to medium plasticity, fine-grained sand with indistinct rock fabric observed
		>332	Bedrock – interbedded siltstone and sandstone, sandstone

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHB12-ABE	Watagan State Forest	0-10	Fill – brown to orange sand with silt, fine to medium grained, poorly graded and poorly compacted, traces of fine to medium subangular gravel
		10-60	Alluvial soil – pale brown to orange sand with silt, fine to medium grained, traces of low to medium plasticity with increasing clay content from 50 cm below ground surface
		60-340	Residual soil:
			60–140 cm – pale brown to orange mottled red clayey sand with silt, fine to medium grained, poorly graded, low to medium plasticity clay
			140–220 cm – change in colour to orange to red with bands of ironstone between 140–150 cm and 190–220 cm below ground surface
			220–271 cm – change in colour to pale brown transitioning to orange to red with a band of ironstone between 260–271 cm below ground surface
			271–340 cm – orange to pale brown mottled red clayey sand with silt, fine to medium grained, poorly graded, low to medium plasticity clay, traces of fine subrounded gravel
		>340	Bedrock - sandstone
BHB11.4-ABE	Watagan State Forest	0-10	Topsoil/fill – dark grey sand, fine to medium grained, poorly graded, traces of silt with roots and rootlets present
		10-40	Residual soil/extremely weathered rock – pale brown to grey sand, fine to medium grained, traces of silt and rootlets, indistinct rock fabric observed
		>40	Bedrock – sandstone
BHB11.6-ABE	Watagan State Forest	0-10	Fill – brown to orange to grey clayey sand, fine to medium grained, low to medium plasticity clay, traces of silt and fine subangular gravel
		10-250	Residual soil – pale brown to orange clayey sand, fine to medium grained, low to medium plasticity clay, traces of silt, highly weathered iron indurated sandstone present with bands present at 90–100 cm and 130–150 cm below ground surface
		>250	Bedrock - sandstone

Borehole	Location	Depth below ground surface (cm)	Interpretation
BHB13.1-ABE	Watagan State Forest	0-10	Fill – pale brown to grey sand with silt, fine to medium grained, poorly graded, traces of fine subrounded sandstone gravel, poorly compacted
		10-174	Residual soil/extremely weathered rock:
			• 10–100 cm – brown to yellow sand, fine to medium grained, traces of silt and fine subangular to angular sandstone gravel, traces of low to medium plasticity clay with bands of extremely weathered sandstone present from 70 cm below ground surface
			• 100–174 cm – grey to pale brown sand transitioning to pale brown to pale grey at 60 cm below ground surface, fine to medium grained, low to medium plasticity clay, with silt, indistinct rock fabric observed
		>174	Bedrock – sandstone, siltstone
BHA25-BB	Putty Road	0-12	Asphalt
		12-30	Fill/basecourse – pale brown to brown to grey gravelly sand, fine to coarse grained
		30-70	Fill – pale brown to brown to grey sand, fine to coarse grained, fine to medium subangular to angular gravel with a band of cobbles and boulders between 50-70 cm below ground surface
		70-156	Residual soil/extremely weathered rock:
			• 70–120 cm - pale brown to brown mottled orange sand, fine to medium grained, traces of silt and low to medium plasticity clay with indistinct rock fabric observed
			No data between 120–137 cm
			 137–156 cm – brown to orange clayey sand, fine to medium grained, low to medium plasticity clay, traces of fine subangular siltstone gravel and indistinct rock fabric observed
		>156	Bedrock - sandstone
BHB11.3-ABE	Watagan State Forest	0-10	Fill/topsoil – grey to brown sand, fine to medium grained, traces of silt and low to medium plasticity clay with roots and rootlets present
		10-120	Residual soil – grey to pale brown sand transitioning to pale brown to orange at 30 cm and pale grey at 90 cm below ground surface, fine to medium grained with traces of silt and low to medium plasticity clay, iron indurated bands at 30 cm and between 40–60 cm below ground surface
		>120	Bedrock – sandstone

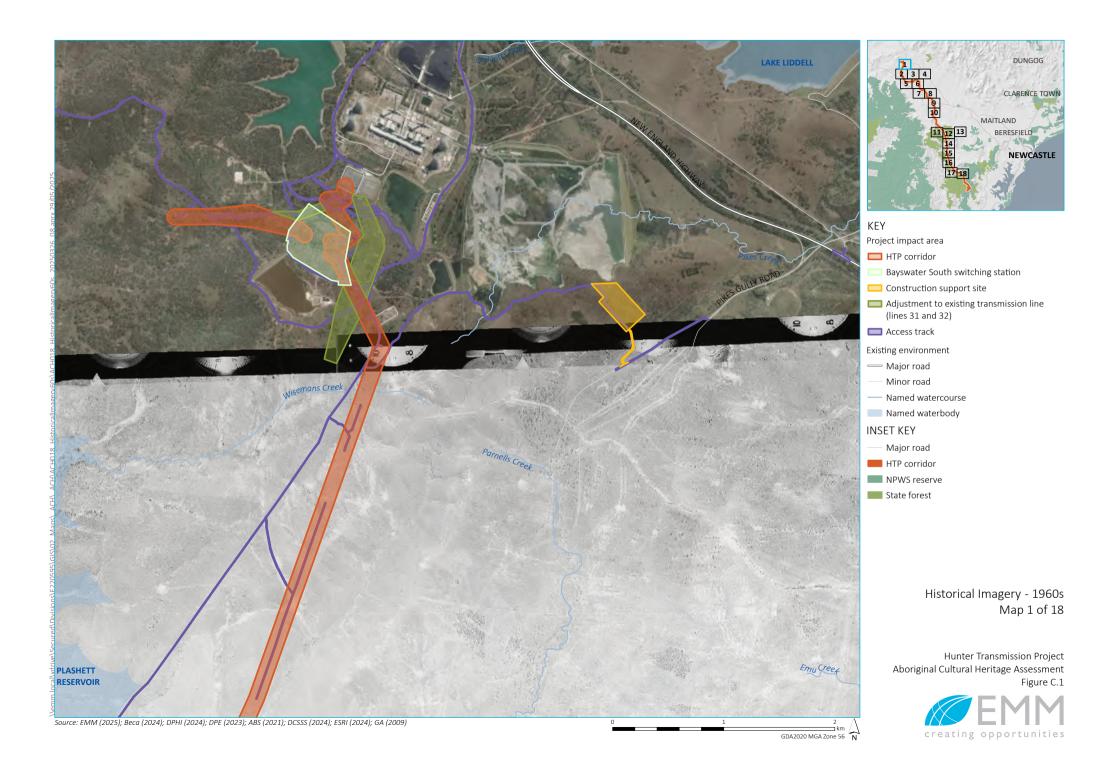
Borehole	Location	Depth below ground surface (cm)	Interpretation
BHB12.1-ABE	Watagan State Forest	0-10	Topsoil/fill – brown to orange sand, fine to medium grained, traces of low to medium plasticity clay and silt, poorly compacted, roots and rootlets present
		10-530	Residual soil/extremely weathered rock:
			• 10–80 cm – orange to red to brown sand, fine to medium grained, traces of low to medium plasticity clay and silt, trace fine angular ironstone gravel at 50 cm below ground surface
			• 80–210 cm – orange to brown sand, low to medium plasticity clay, traces of fine subrounded to rounded quartz gravel, band of iron indurated stone between 180–210 cm below ground surface
			• 210–300 cm – pale grey to brown clayey sand transitioning to pale grey to orange at 250 cm below ground surface, fine to medium grained, low to medium plasticity clay, silt, indistinct rock fabric observed
			• 300–477 cm – brown to pale brown to red clayey sand transitioning to pale grey to orange at 366 cm and brown to orange at 425 cm below ground surface, fine to medium grained, low to medium plasticity clay, traces of subangular to subrounded ironstone and quartz gravel, silt and indistinct rock fabric observed, bands of iron indurated sandstone from 425 cm
			No data between 477–500 cm
			• 500–530 cm – pale grey to red clayey sand, fine to coarse grained, low to medium plasticity clay, traces of quartz rich silt, bands of iron indurated sandstone and indistinct rock fabric observed
		>530	Bedrock – sandstone, interbedded sandstone and siltstone
BHB15-ABE	Watagan State Forest	0–15	Topsoil/fill – dark grey to dark brown sand, fine to medium grained, traces of low to medium plasticity clay and silt, roots and rootlets present
		15–70	Residual soil – pale brown to brown clayey sand, fine to medium grained, poorly graded, medium plasticity clay increasing at depth
		70–163	Residual soil/extremely weathered rock:
			• 70–150 cm – orange to pale grey sandy clay transitioning to pale grey to orange at 110 cm below ground surface, medium plasticity, fine to medium grained sand, bands of ironstone gravel with indistinct rock fabric observed at 100 cm
			• 150–163 cm – brown to orange clayey sand, fine to coarse grained, well graded, medium plasticity clay
		>163	Bedrock - sandstone

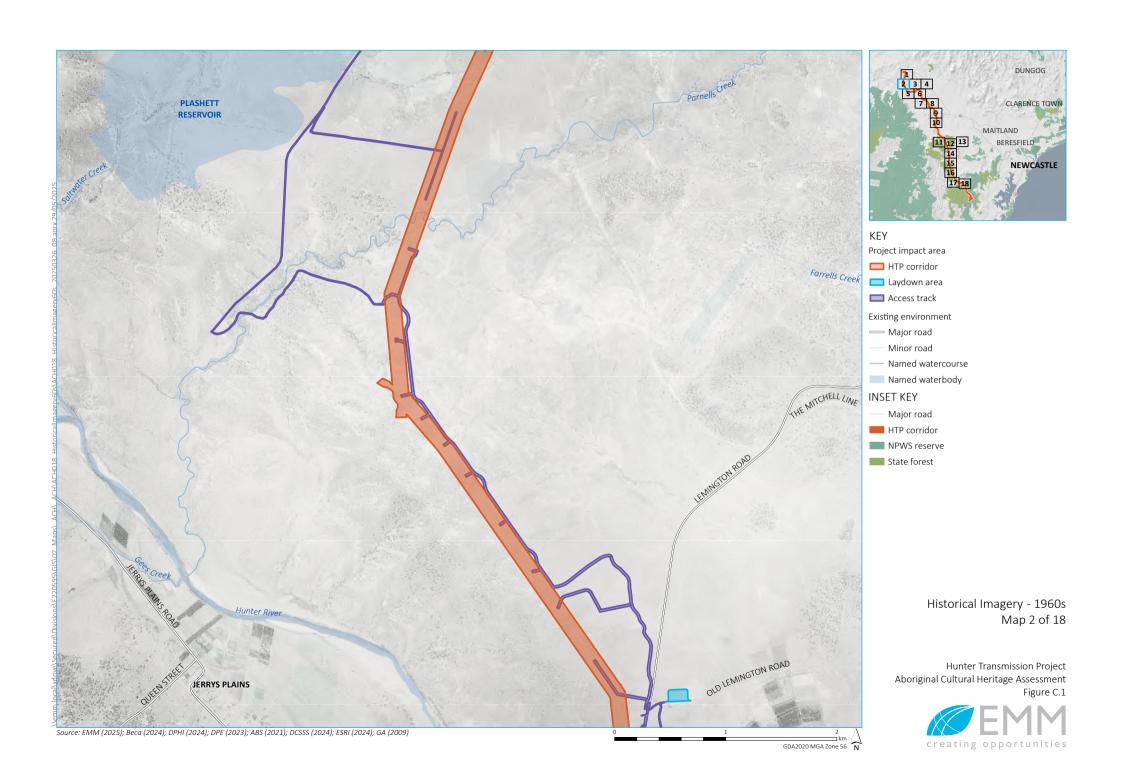
Borehole	Location	Depth below ground surface (cm)	Interpretation
BHB16-ABE	Watagan State Forest	0–40	Fill – pale brown to brown sand, fine to medium grained, fine to coarse angular ironstone and sandstone gravel, traces of low to medium plasticity clay
		40–110	Residual soil/extremely weathered rock – pale brown sand transitioning to pale grey at 90 cm below ground surface, fine to medium grained, traces of low to medium plasticity clay and silt with indistinct rock fabric observed and band of highly weathered sandstone between 70–90 cm below ground surface
		>110	Bedrock – sandstone, interbedded sandstone and siltstone

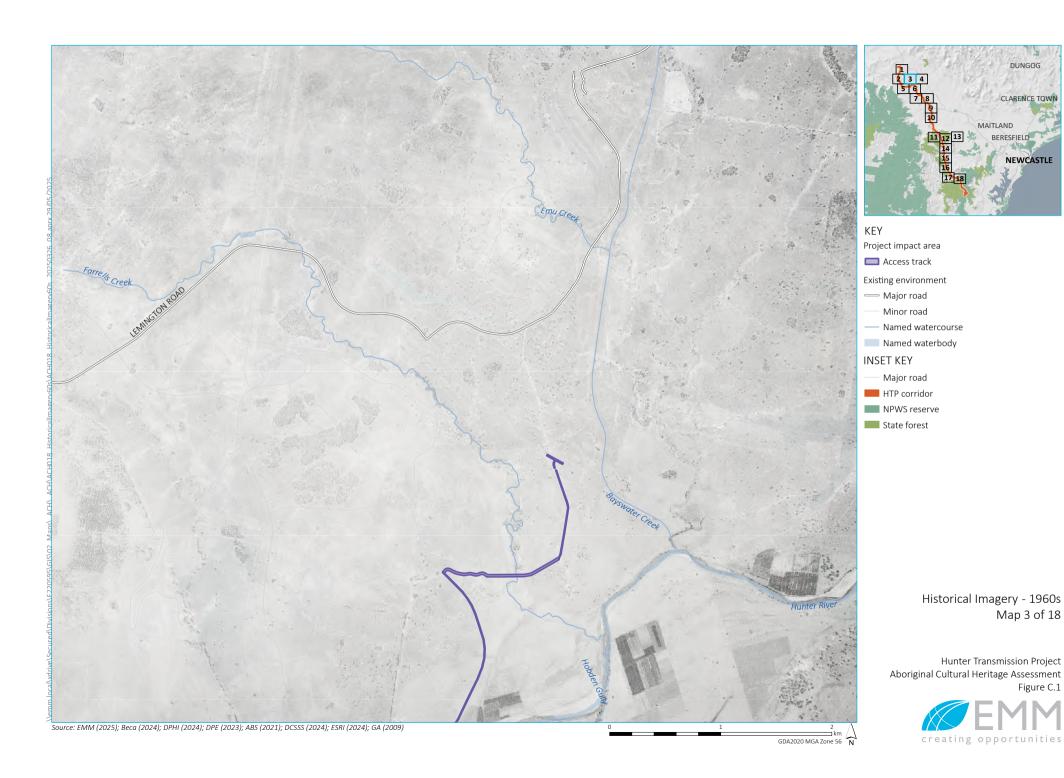
C.2 Historical aerial imagery

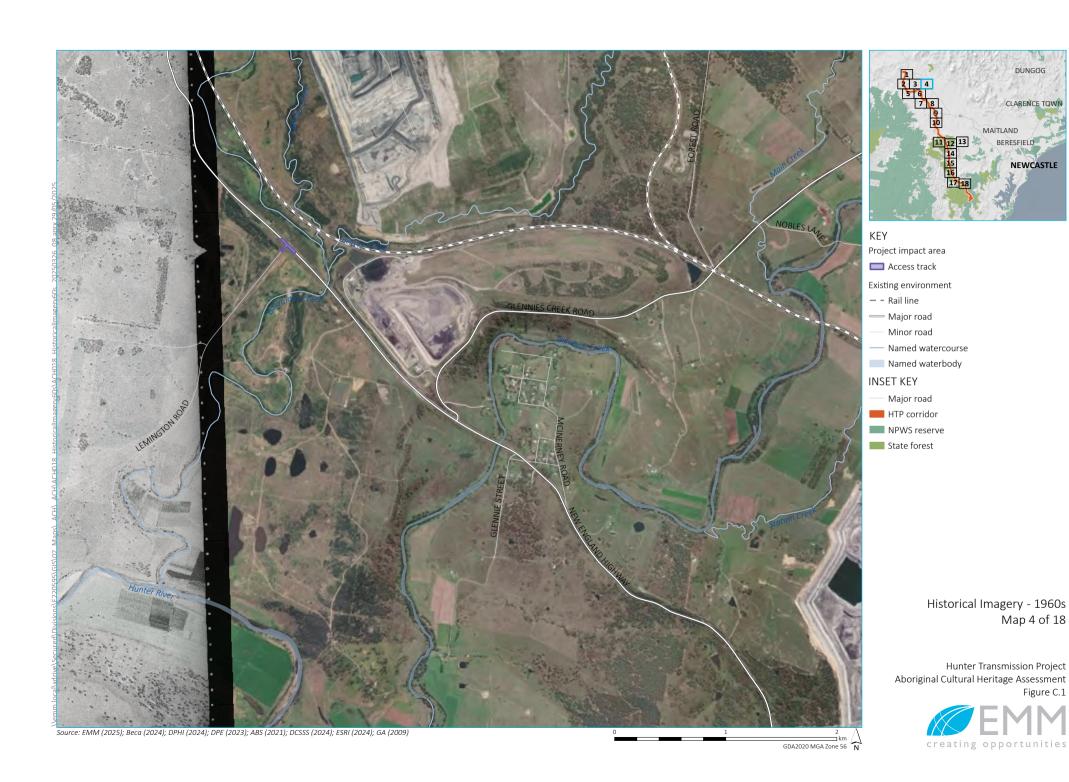
The following maps present historical aerials from the 1960s, 1970s, and 1980s of the project impact area where available.

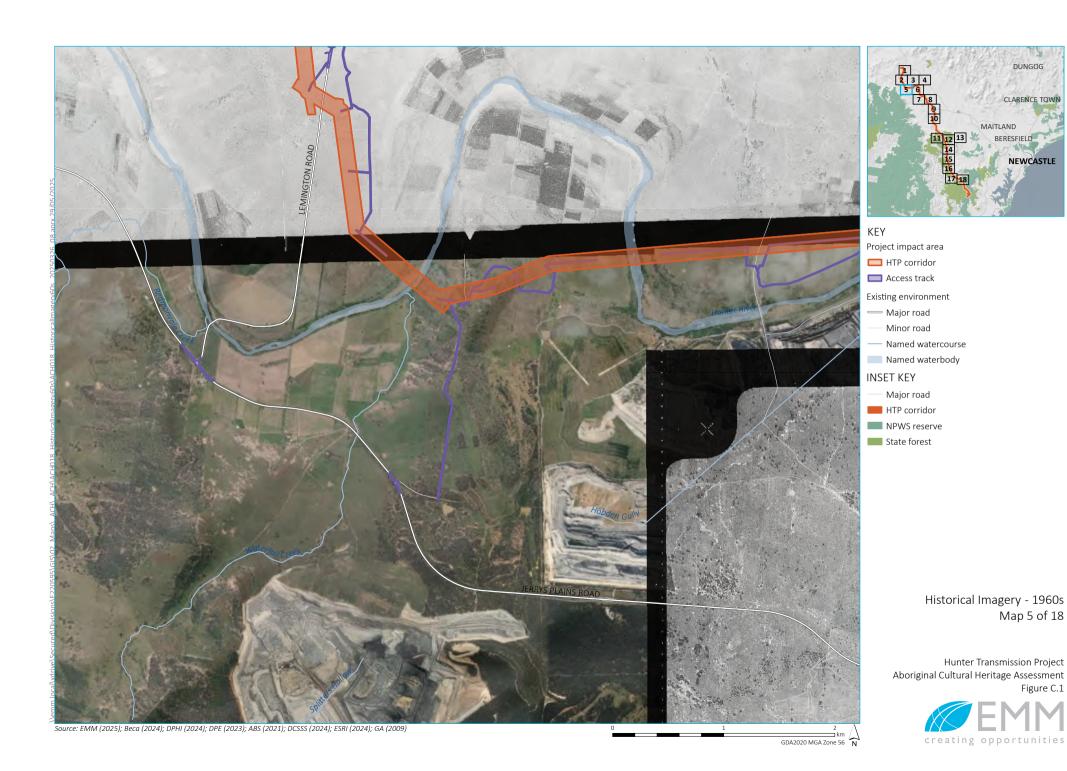
Figure C.1 Historical imagery – 1960s

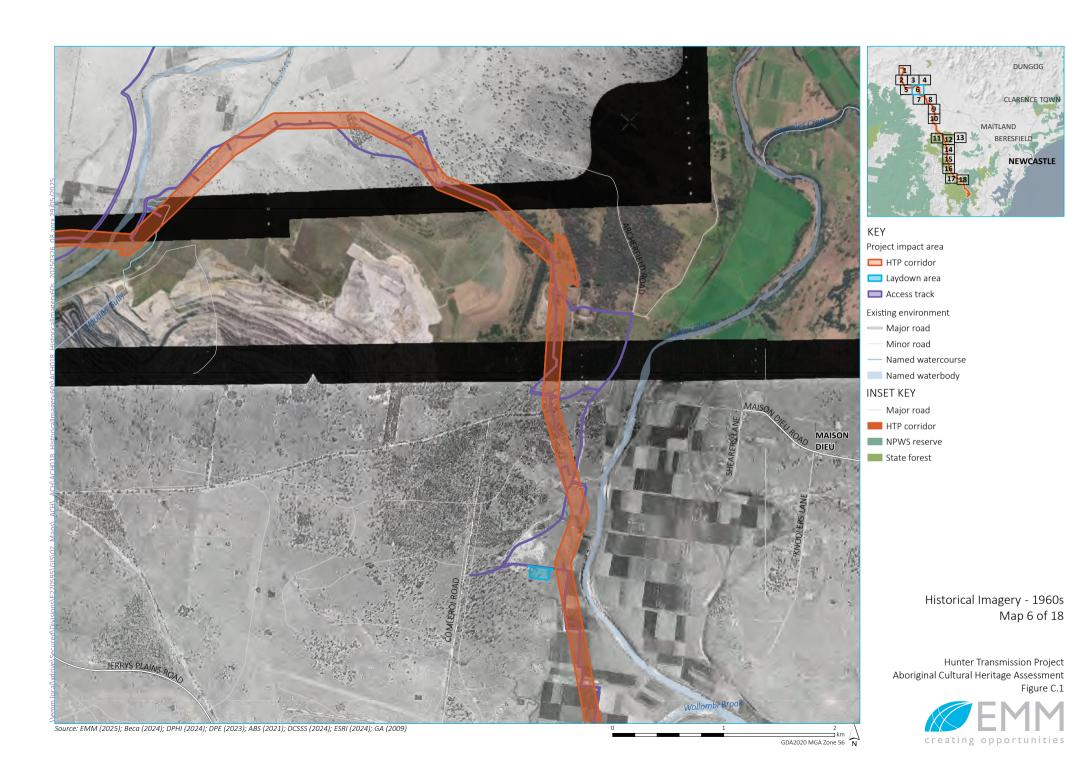


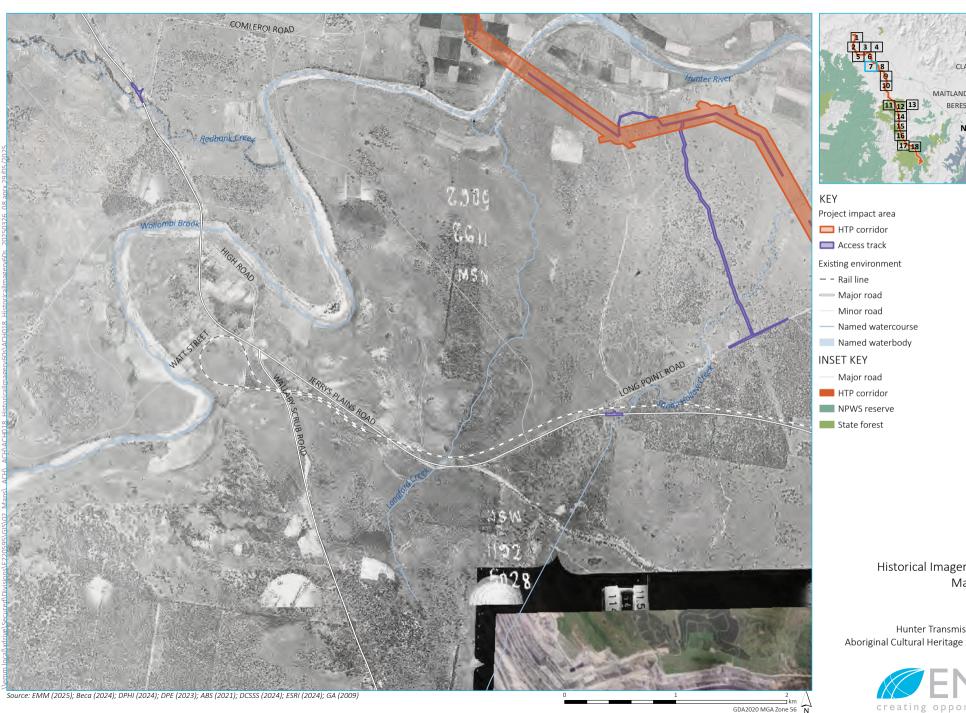










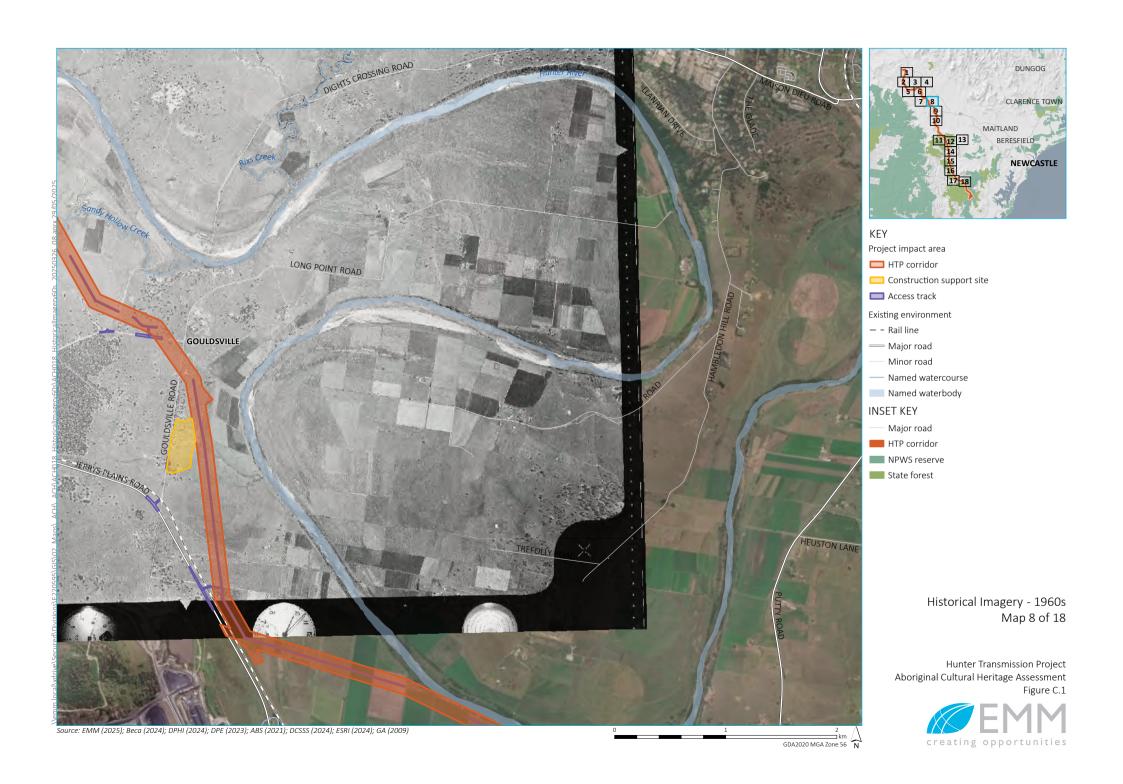


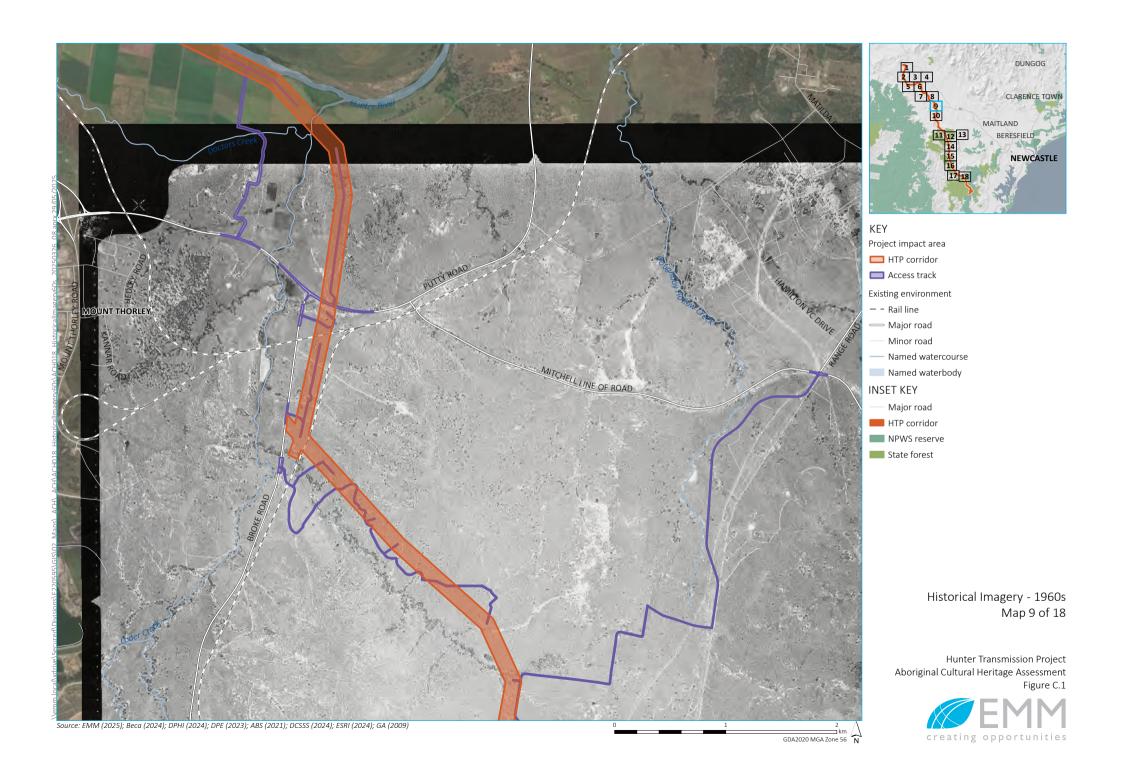


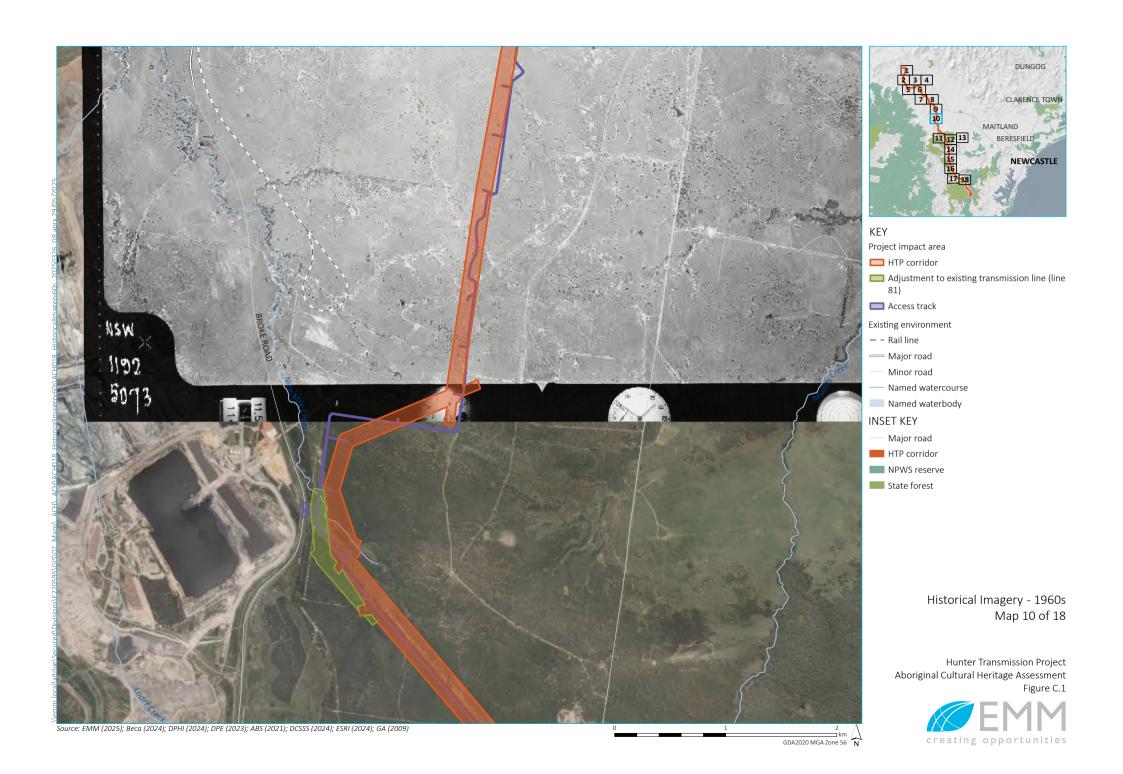
Historical Imagery - 1960s Map 7 of 18

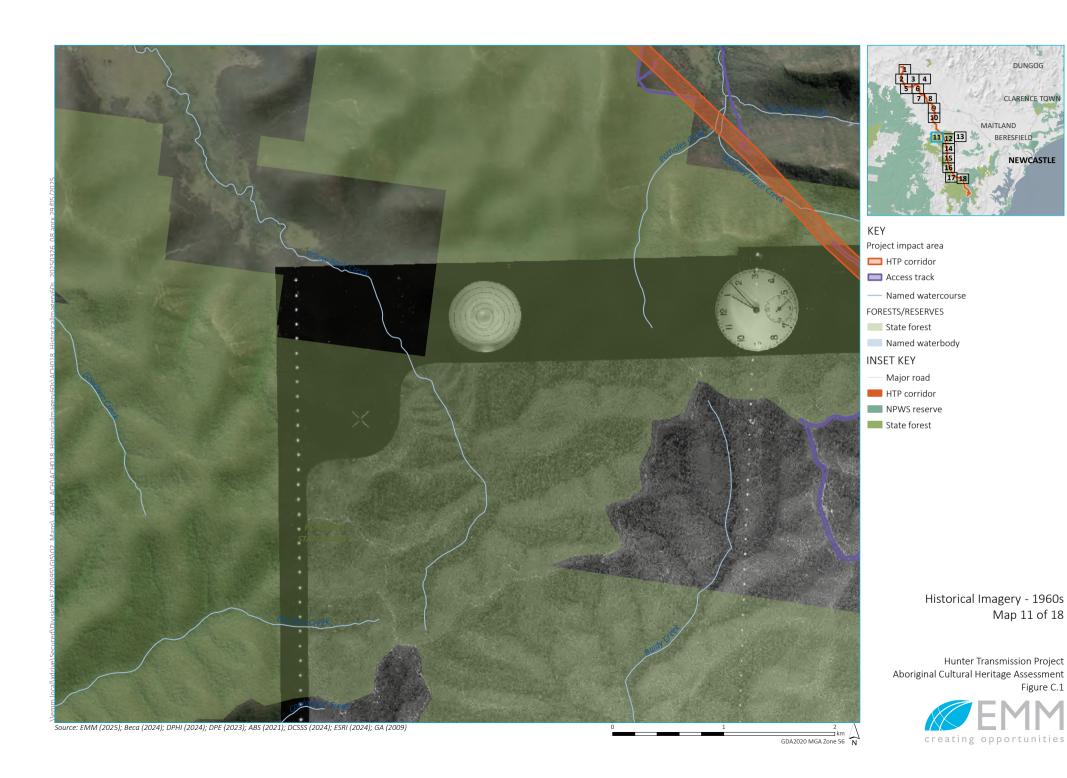
Hunter Transmission Project Aboriginal Cultural Heritage Assessment Figure C.1

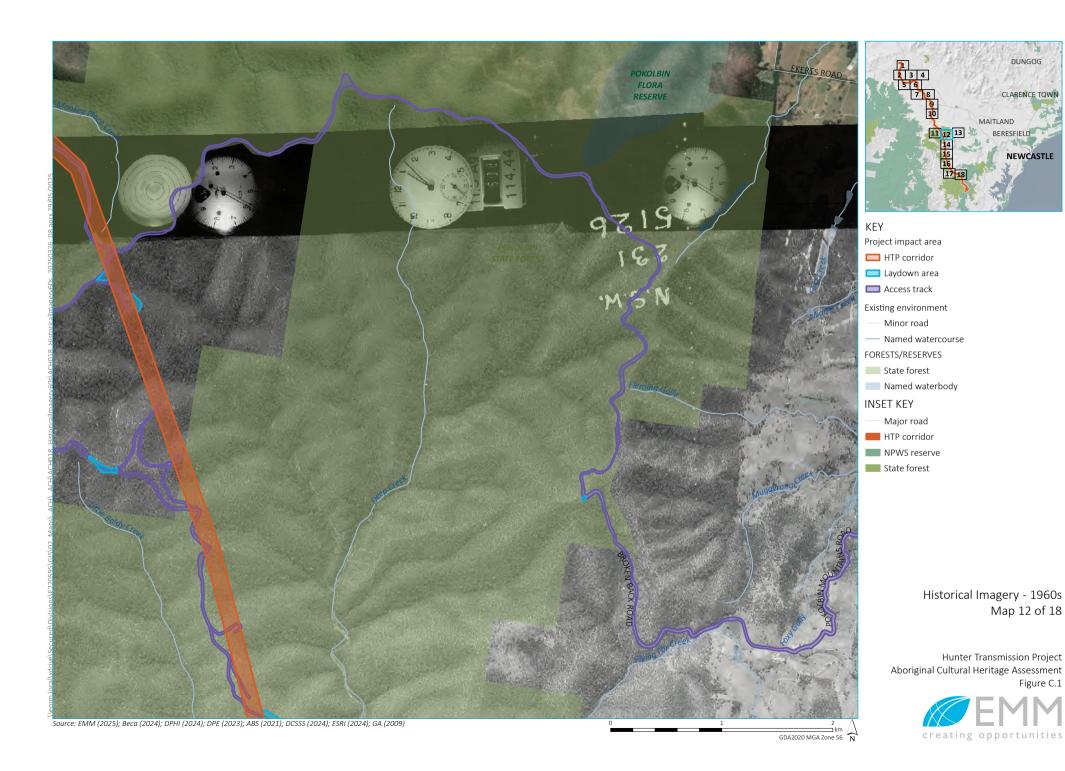


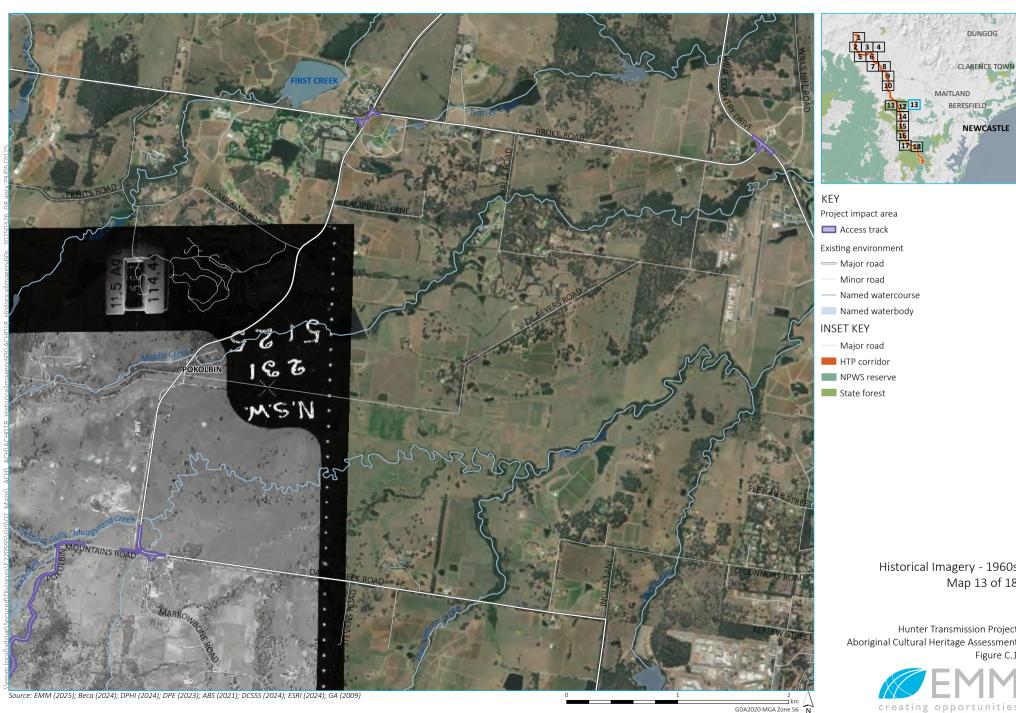








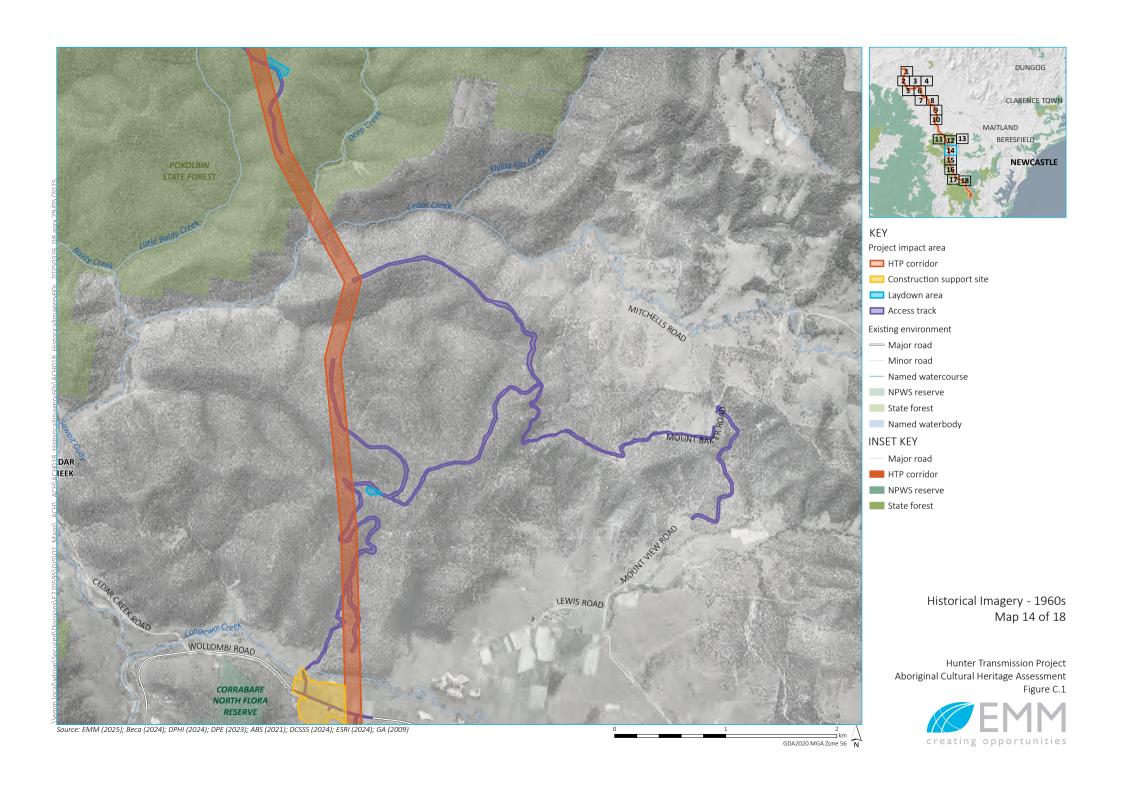


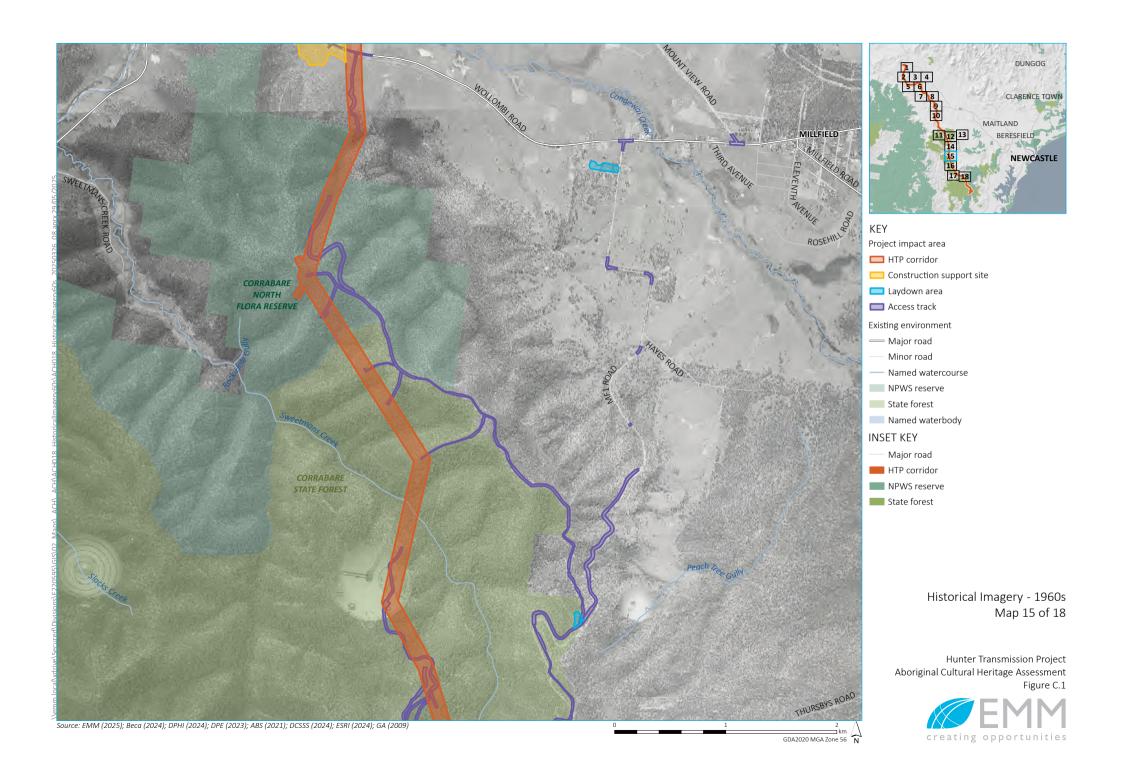


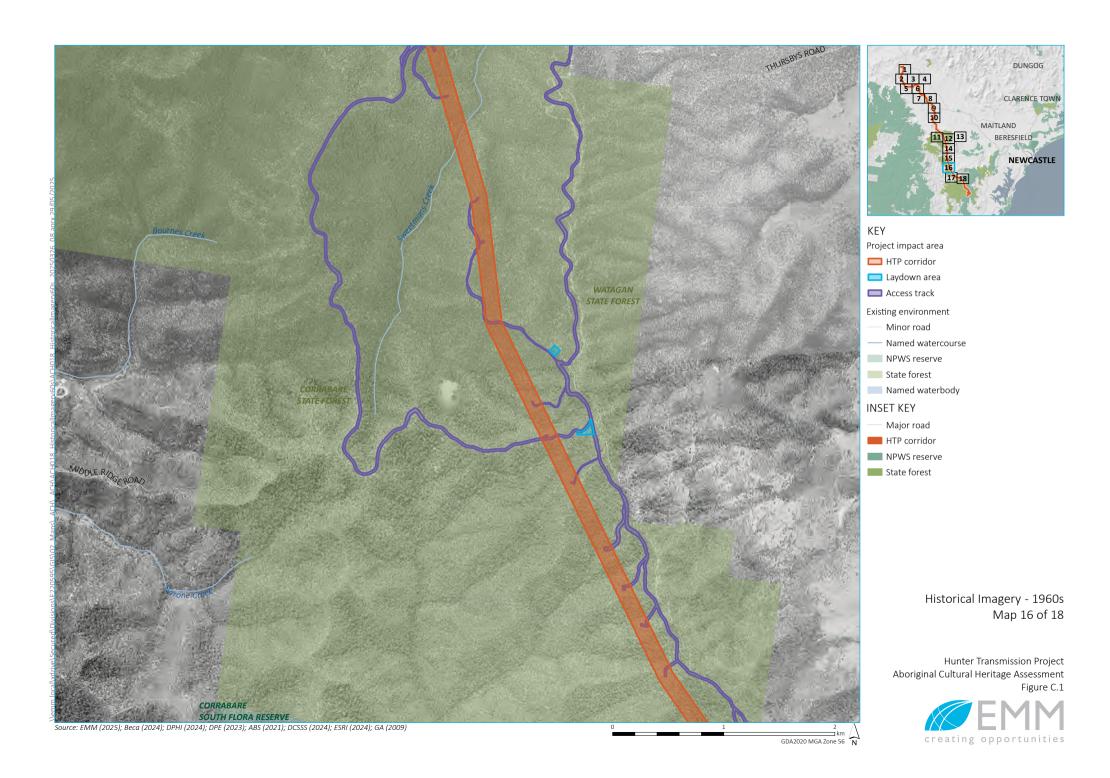
Historical Imagery - 1960s Map 13 of 18

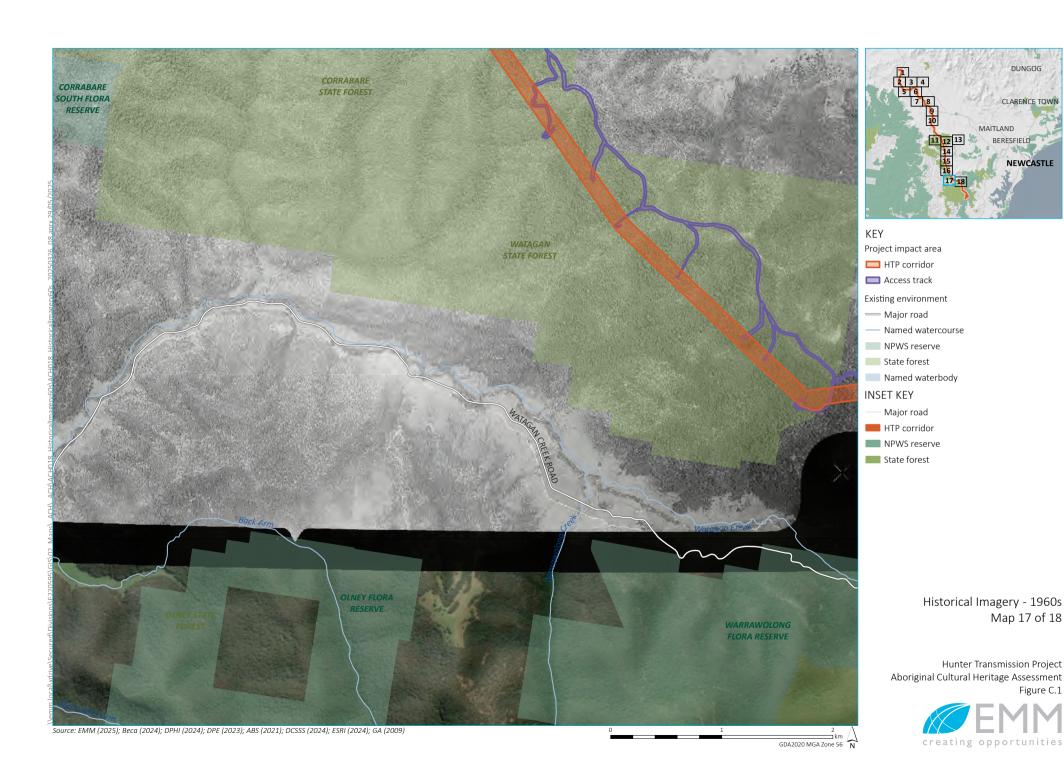
Hunter Transmission Project Aboriginal Cultural Heritage Assessment Figure C.1











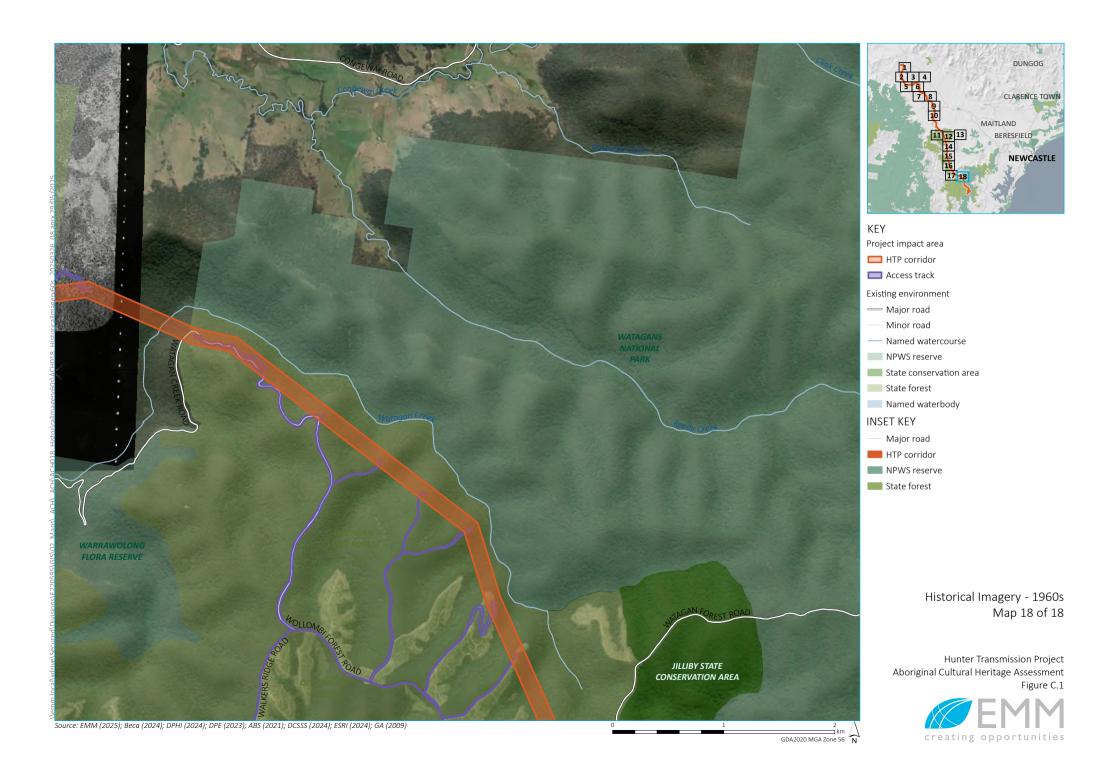
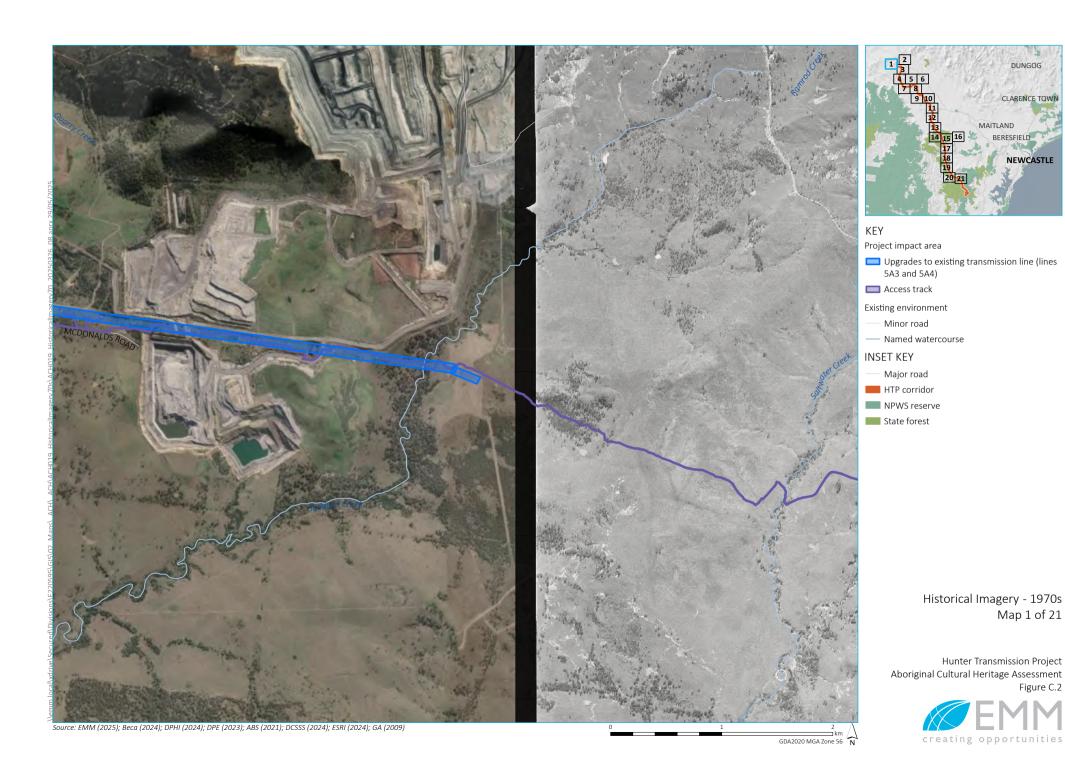
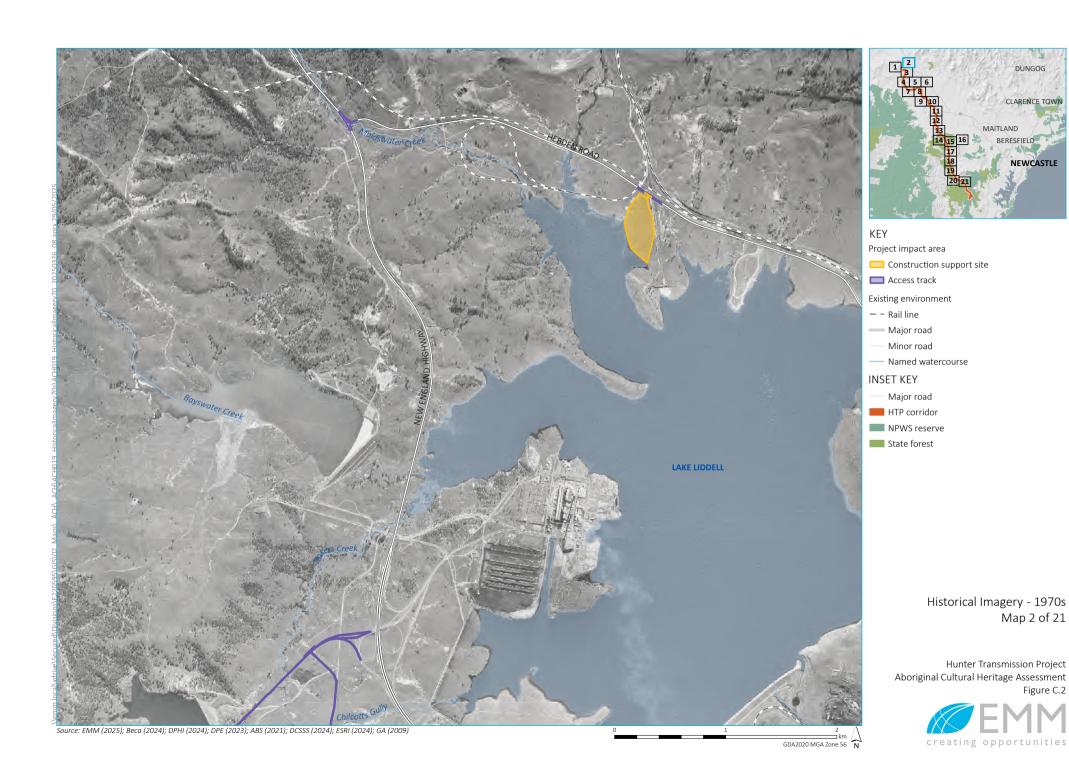
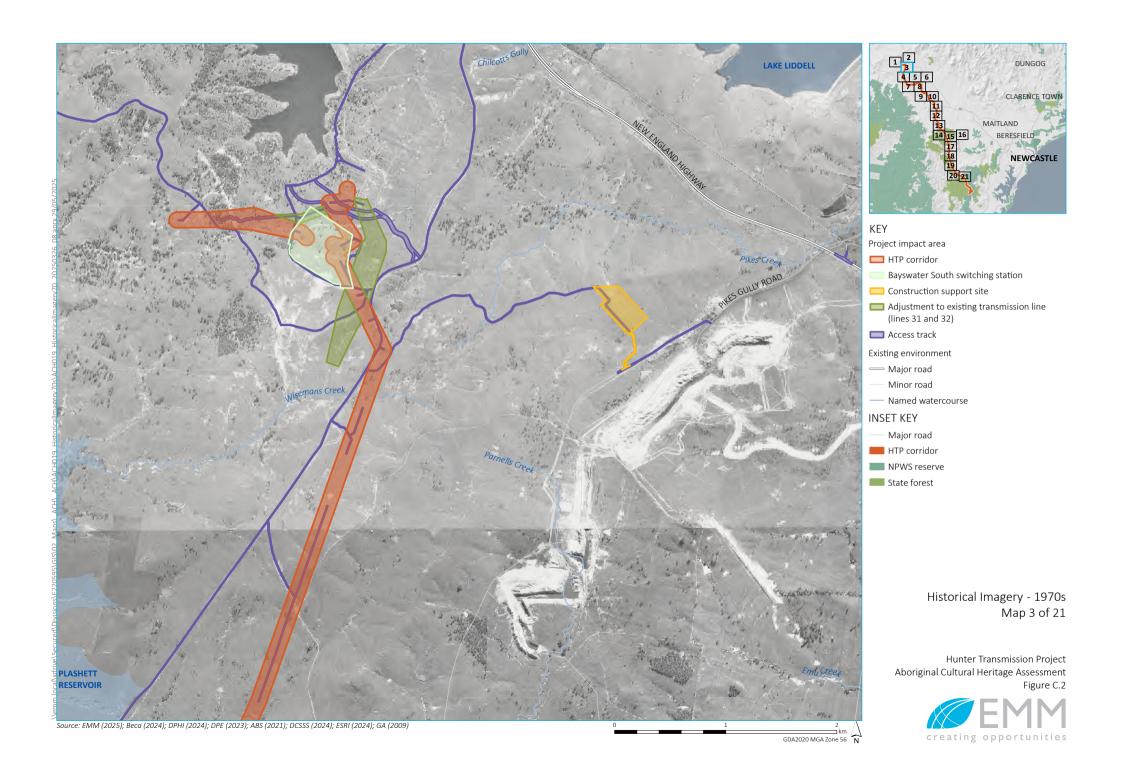
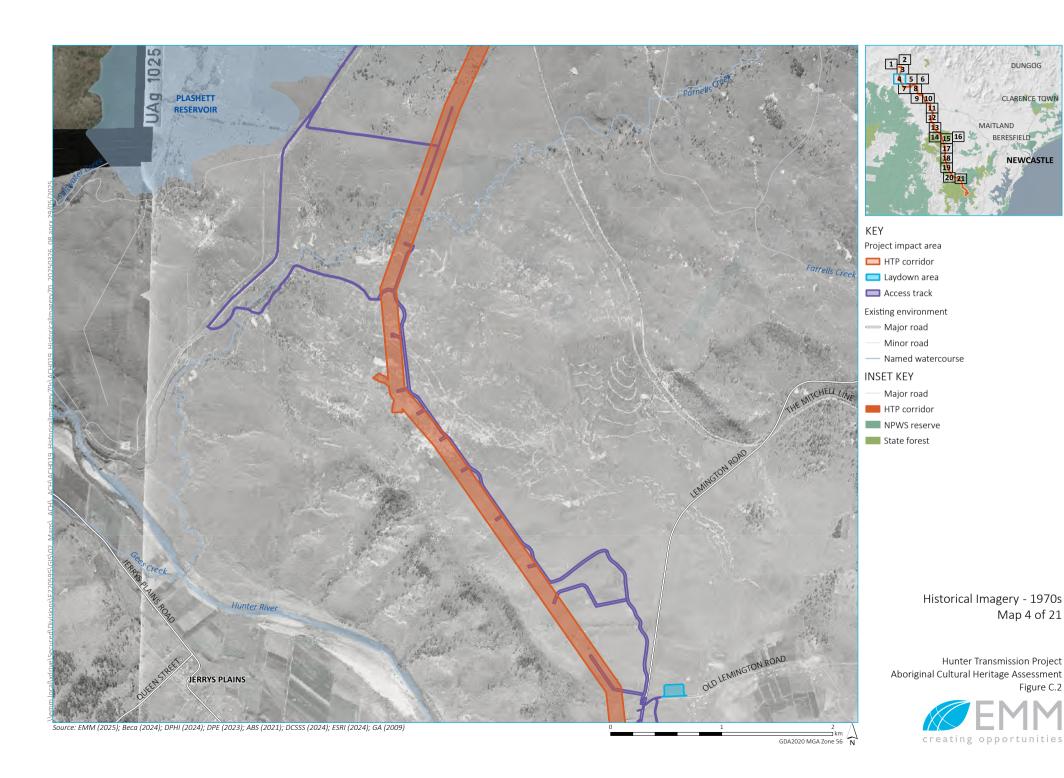


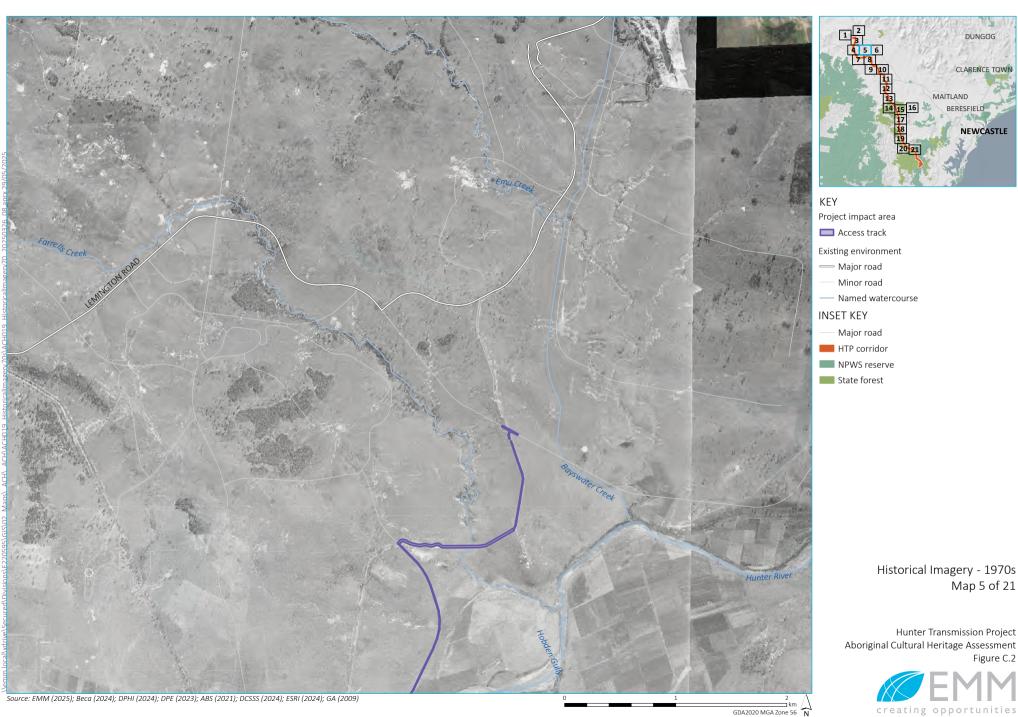
Figure C.2 Historical imagery – 1970s





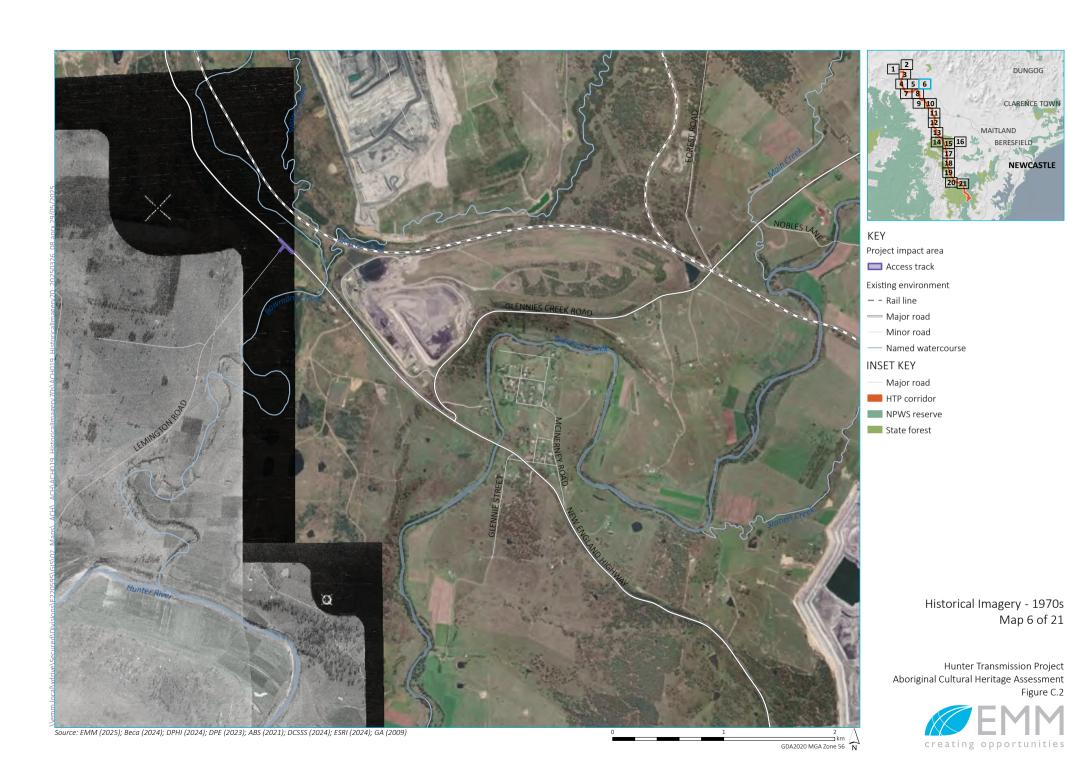


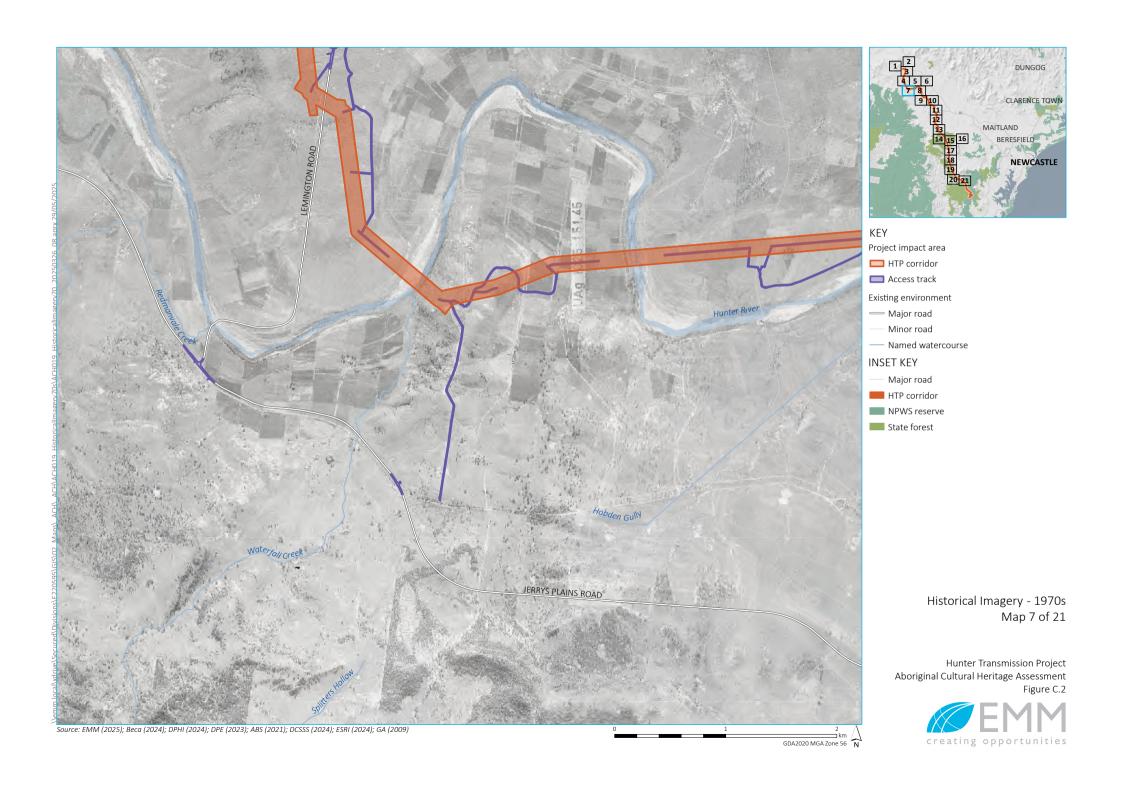


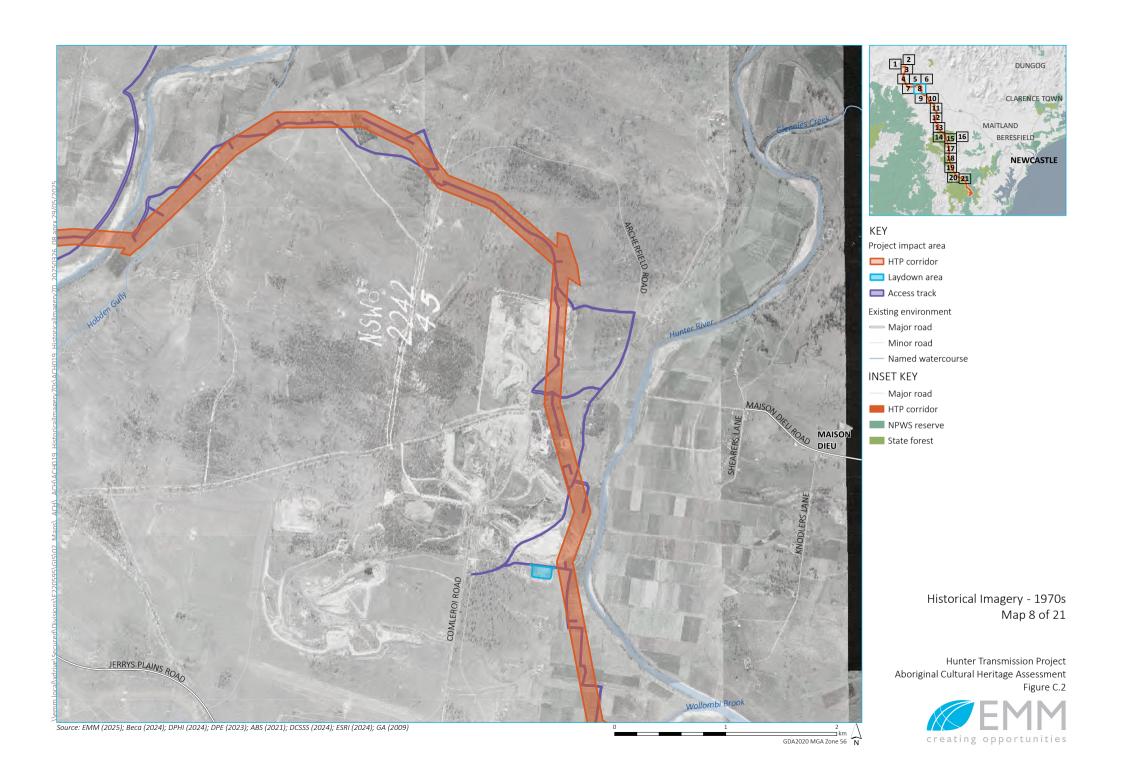


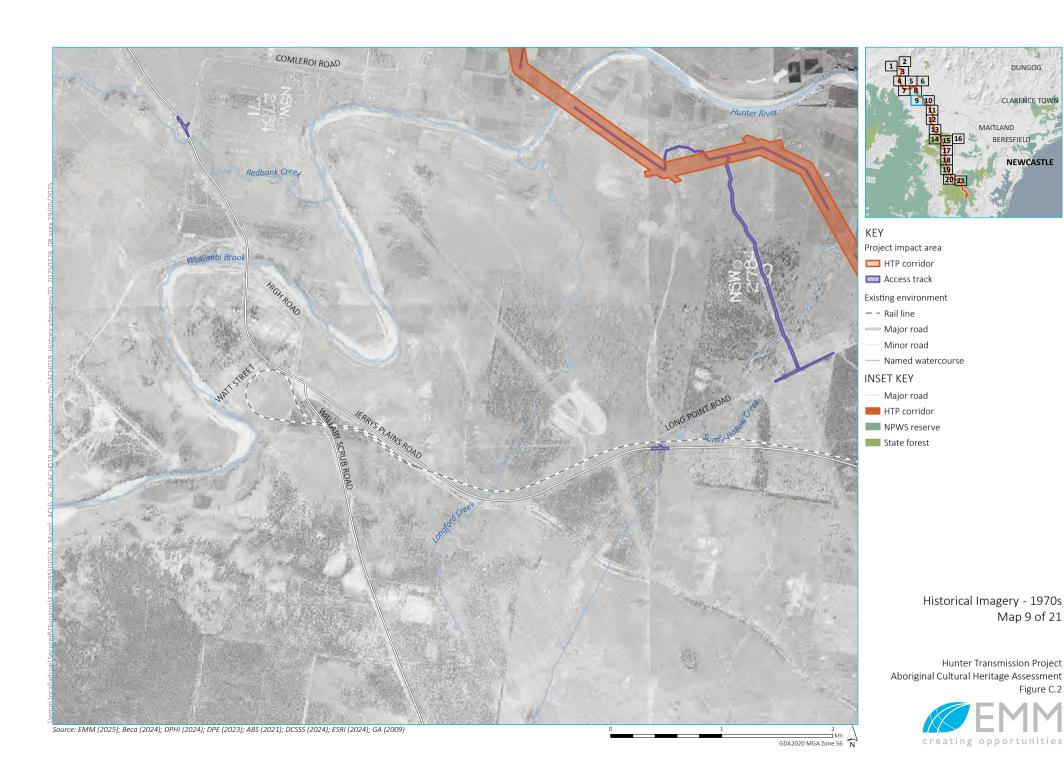
Hunter Transmission Project Aboriginal Cultural Heritage Assessment Figure C.2

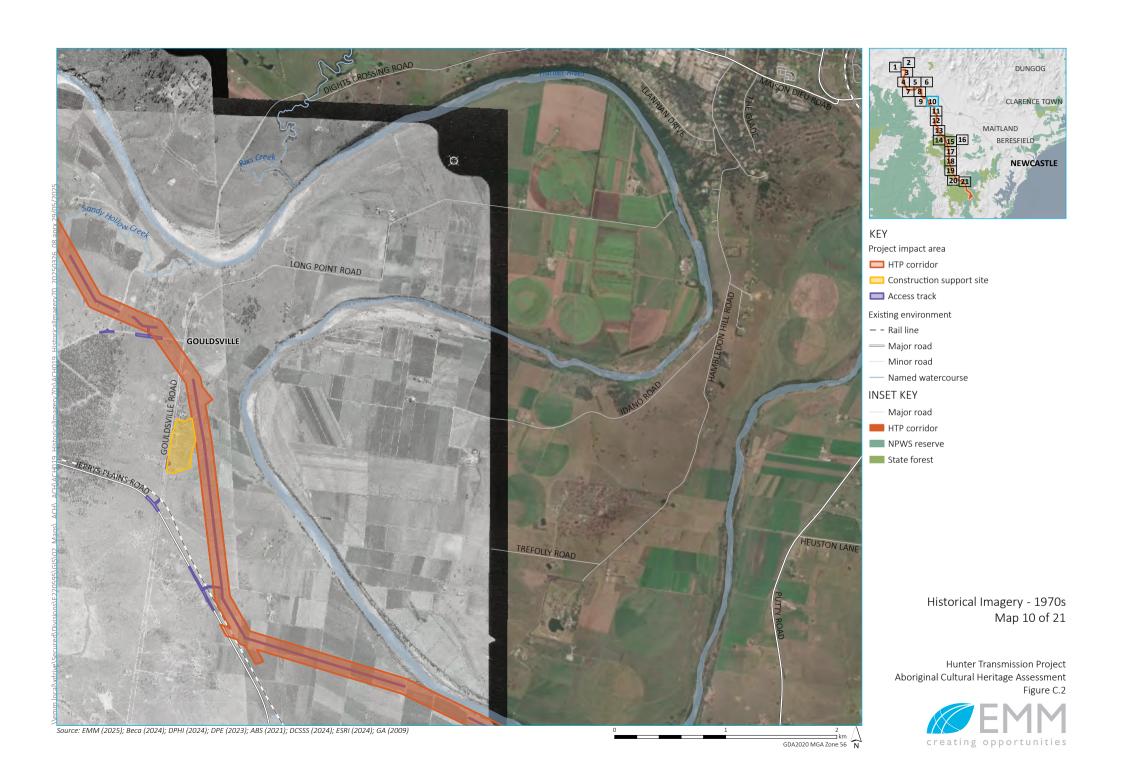


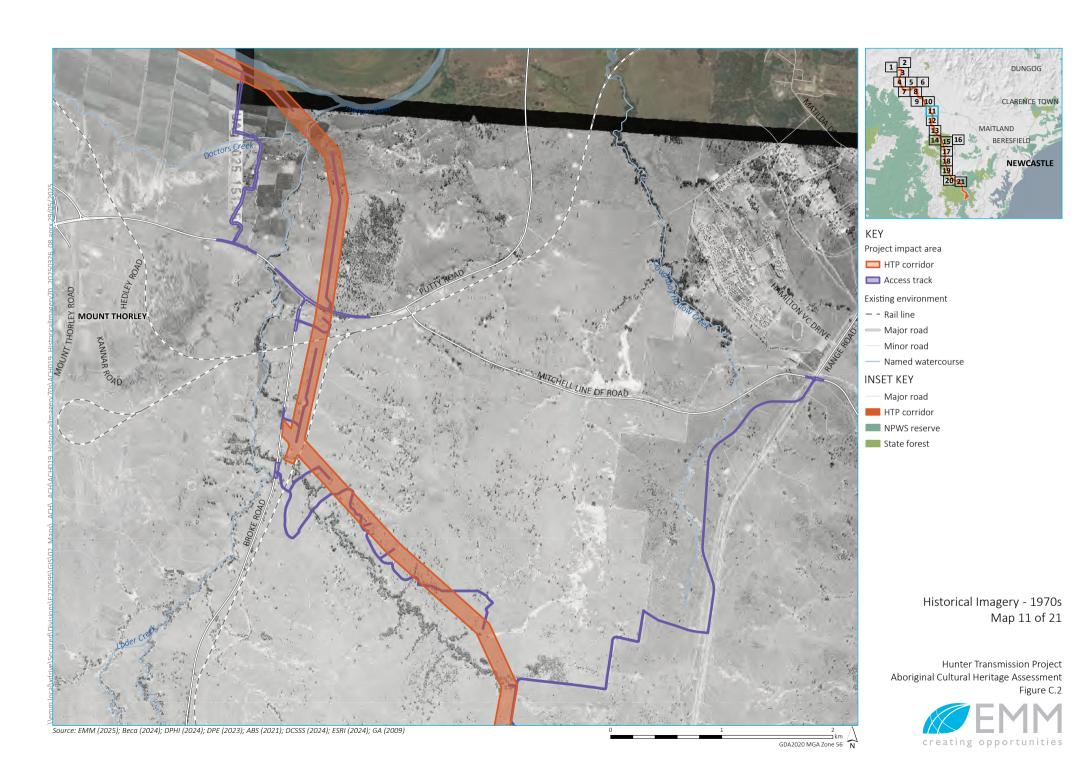


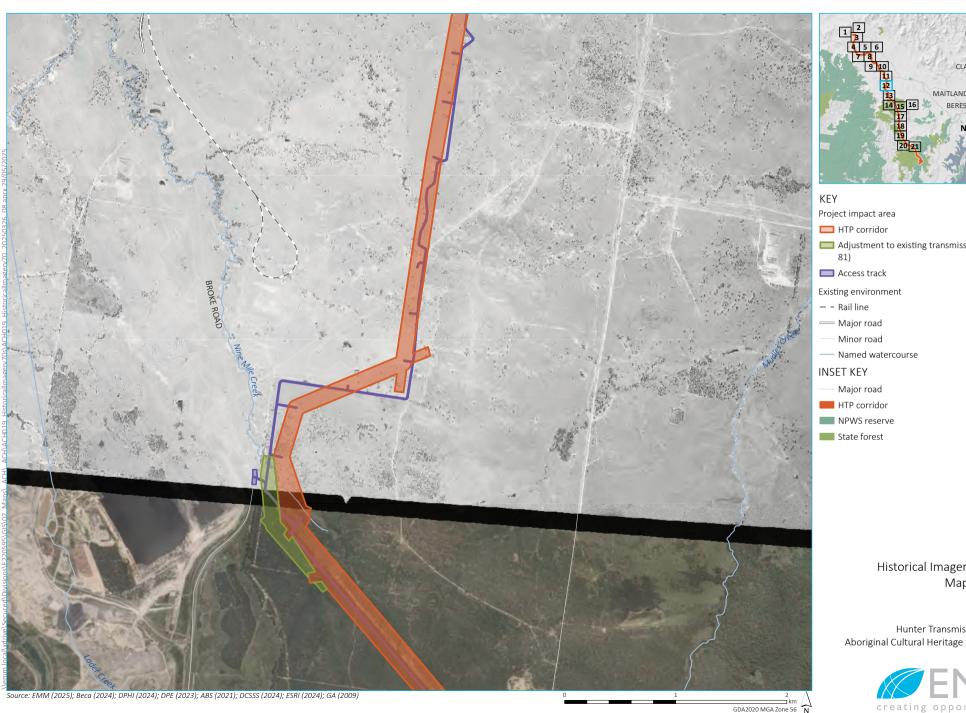










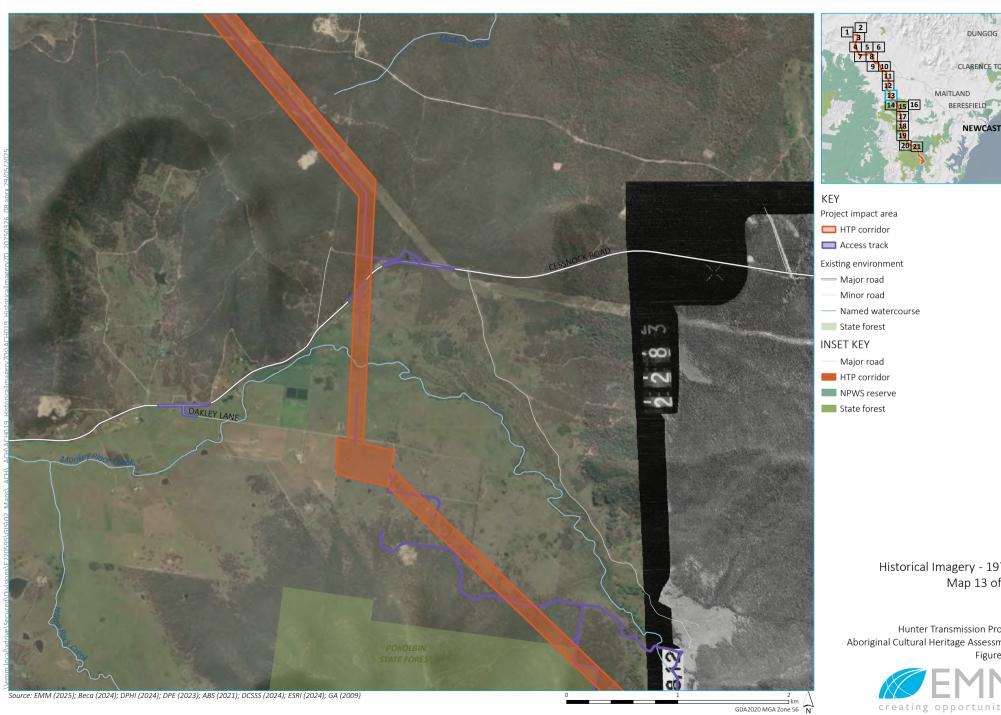




Adjustment to existing transmission line (line

Historical Imagery - 1970s Map 12 of 21



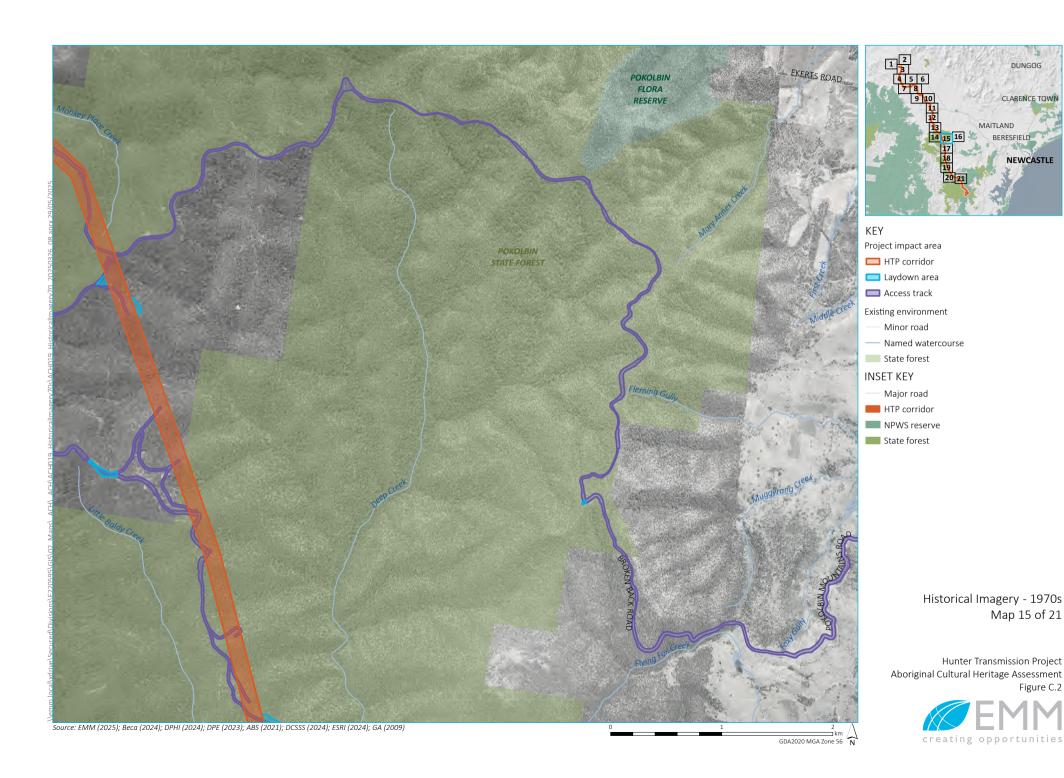




Historical Imagery - 1970s Map 13 of 21











Access track

Existing environment

— Major road

Minor road

Named watercourse

INSET KEY

— Major road

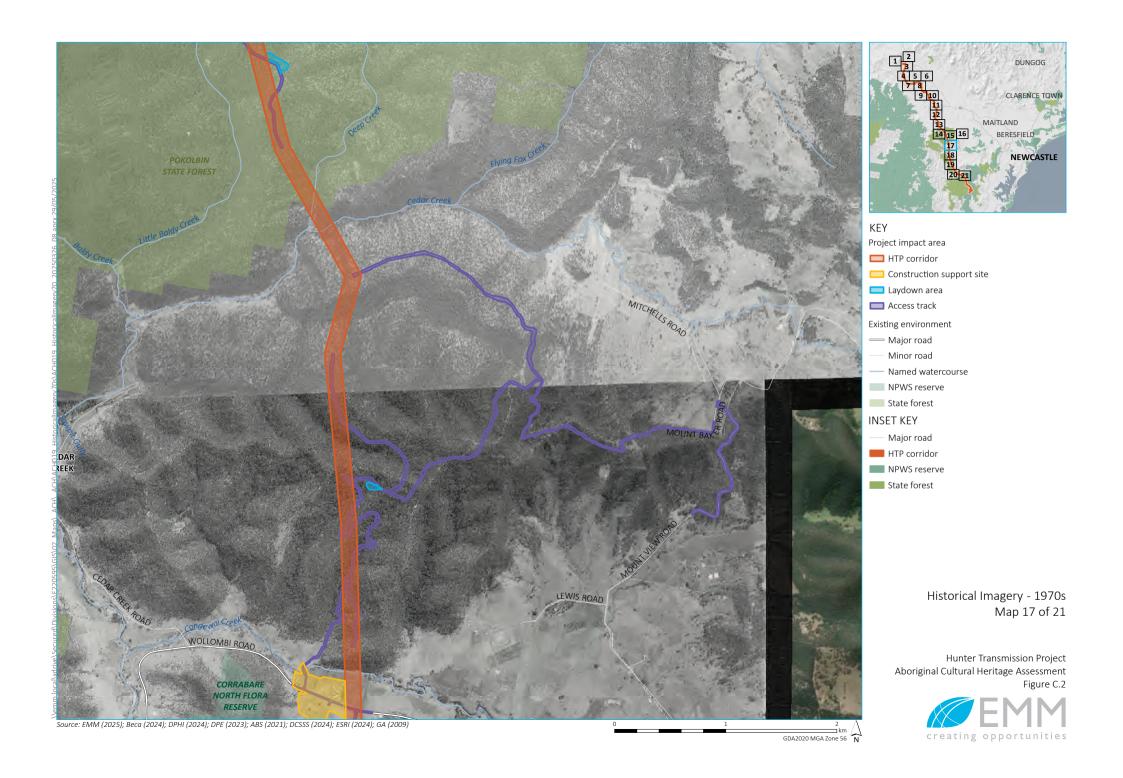
HTP corridor

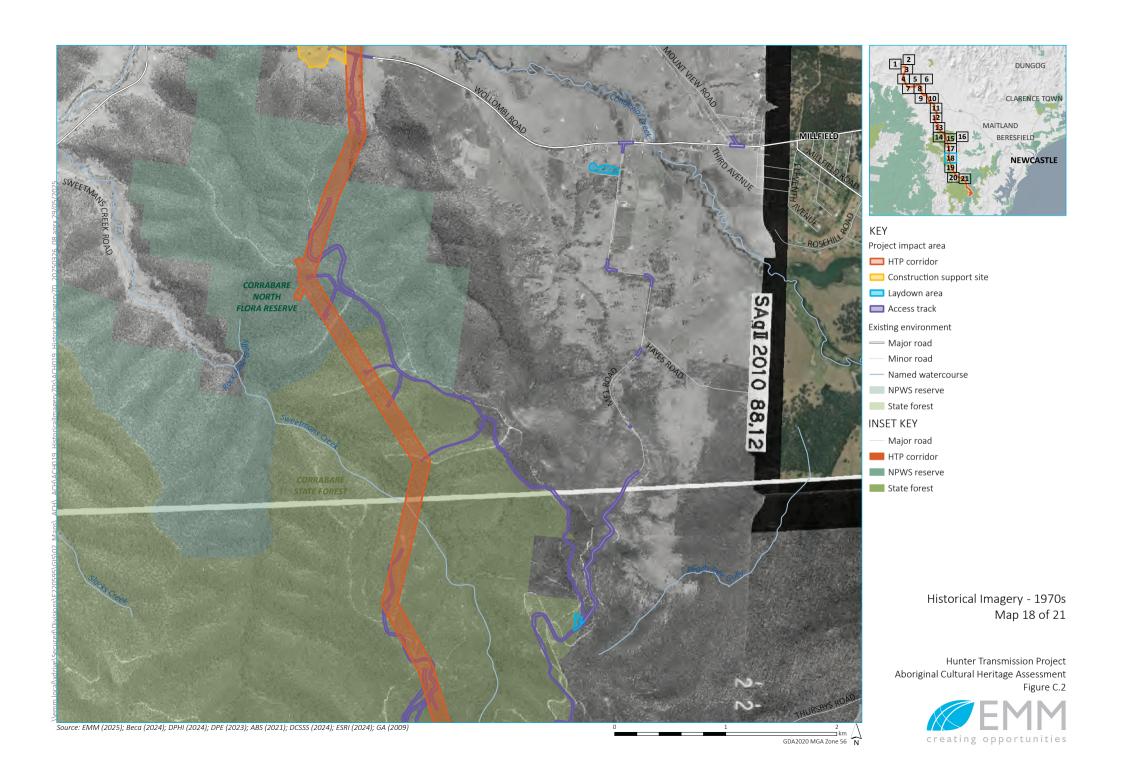
NPWS reserve

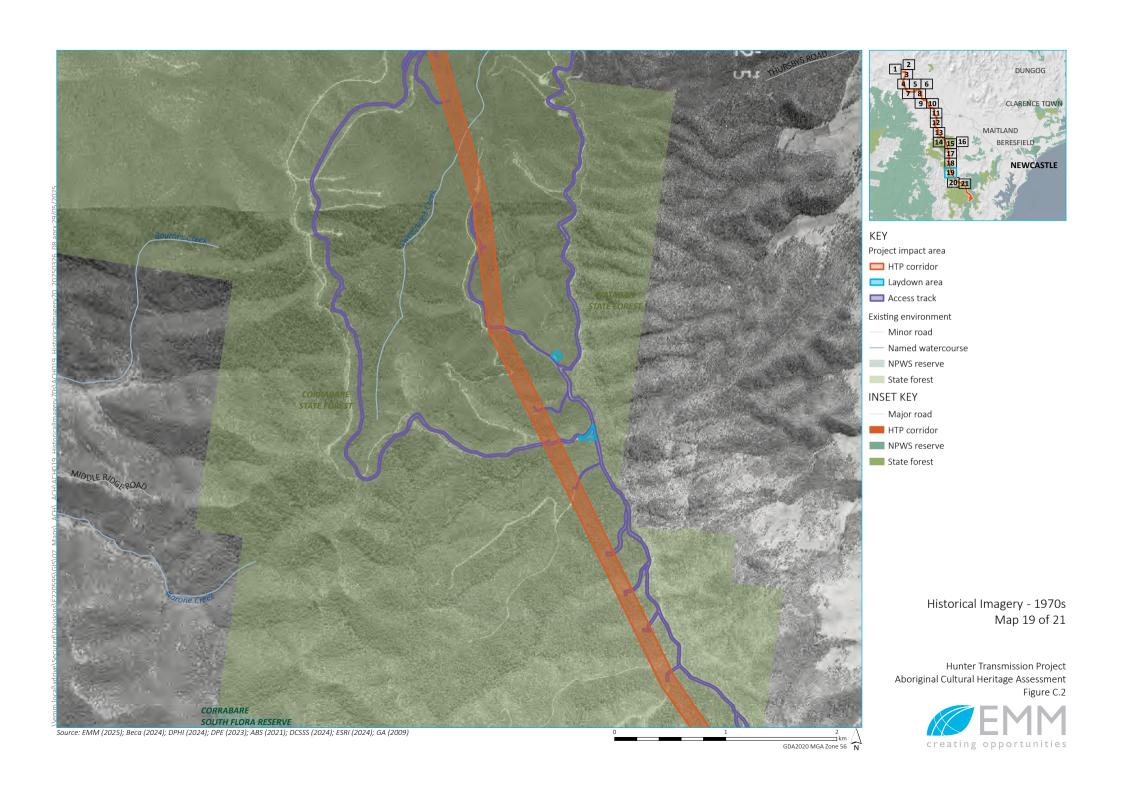
State forest

Historical Imagery - 1970s Map 16 of 21









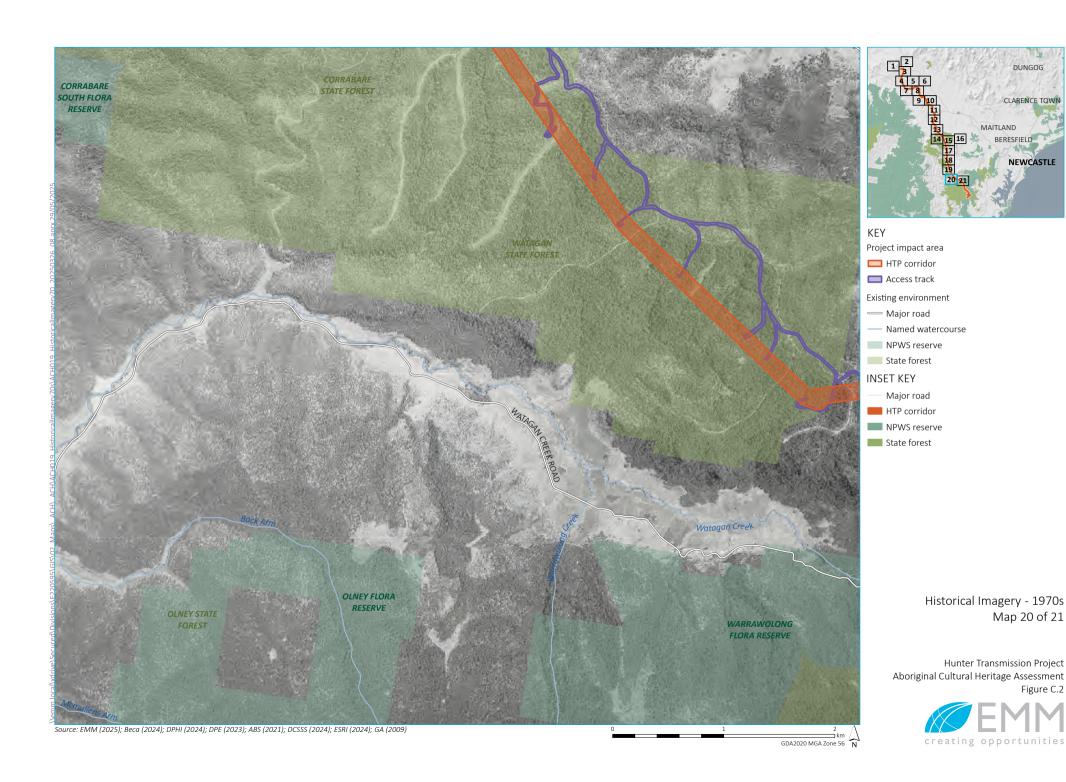
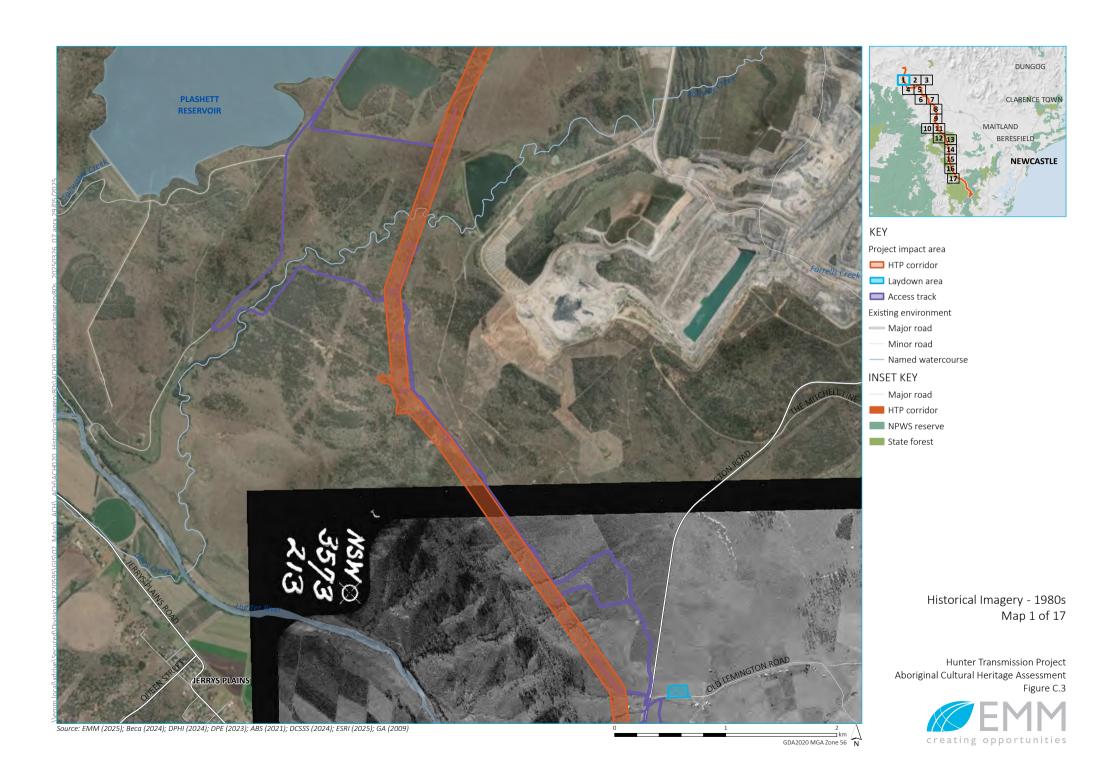
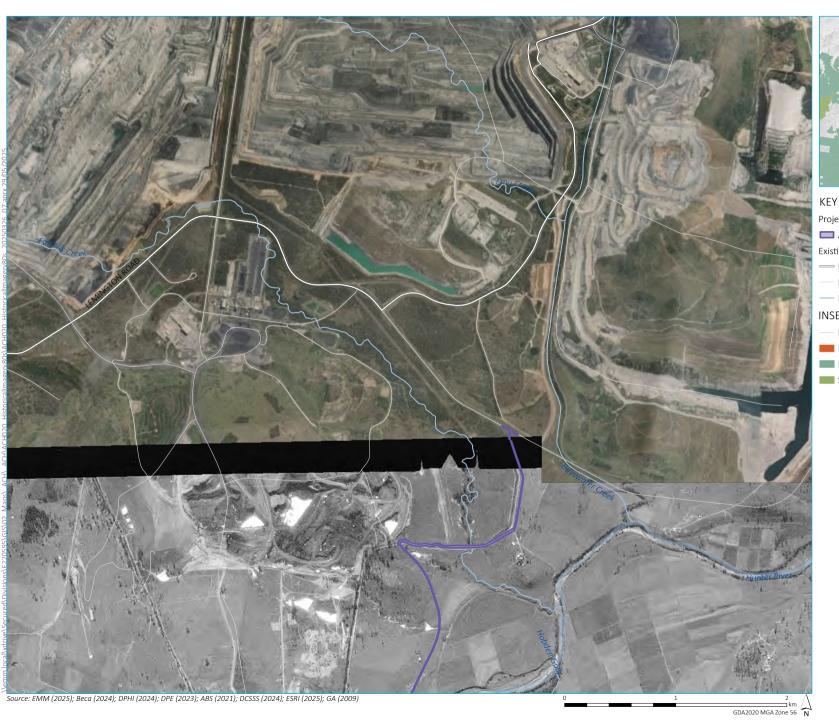




Figure C.3 Historical imagery – 1980s

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Access track

Existing environment

— Major road

Minor road

— Named watercourse

INSET KEY

Major road

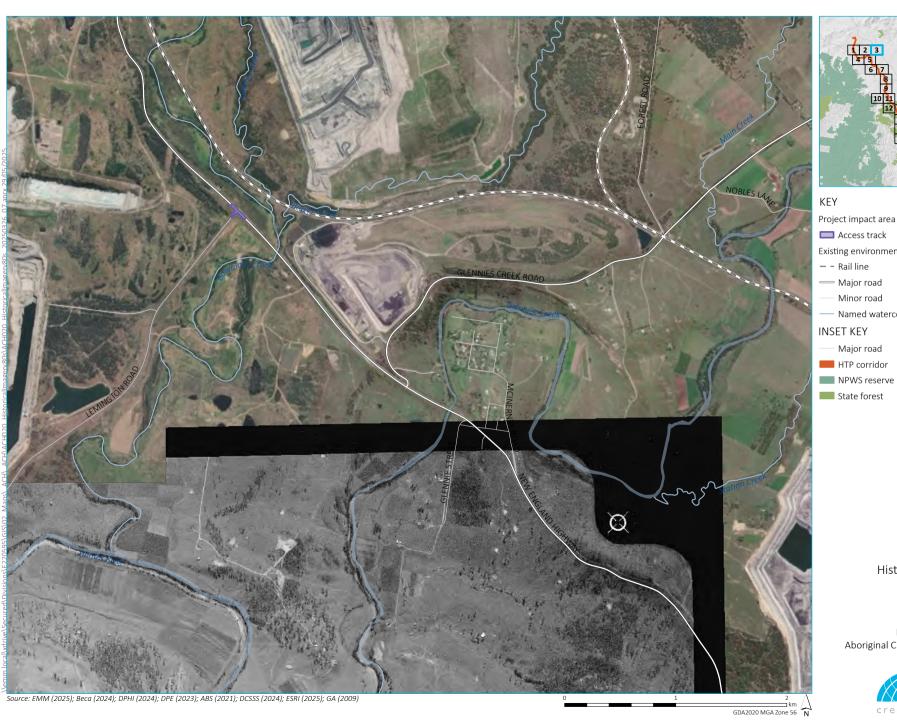
HTP corridor

NPWS reserve

State forest

Historical Imagery - 1980s Map 2 of 17







Existing environment

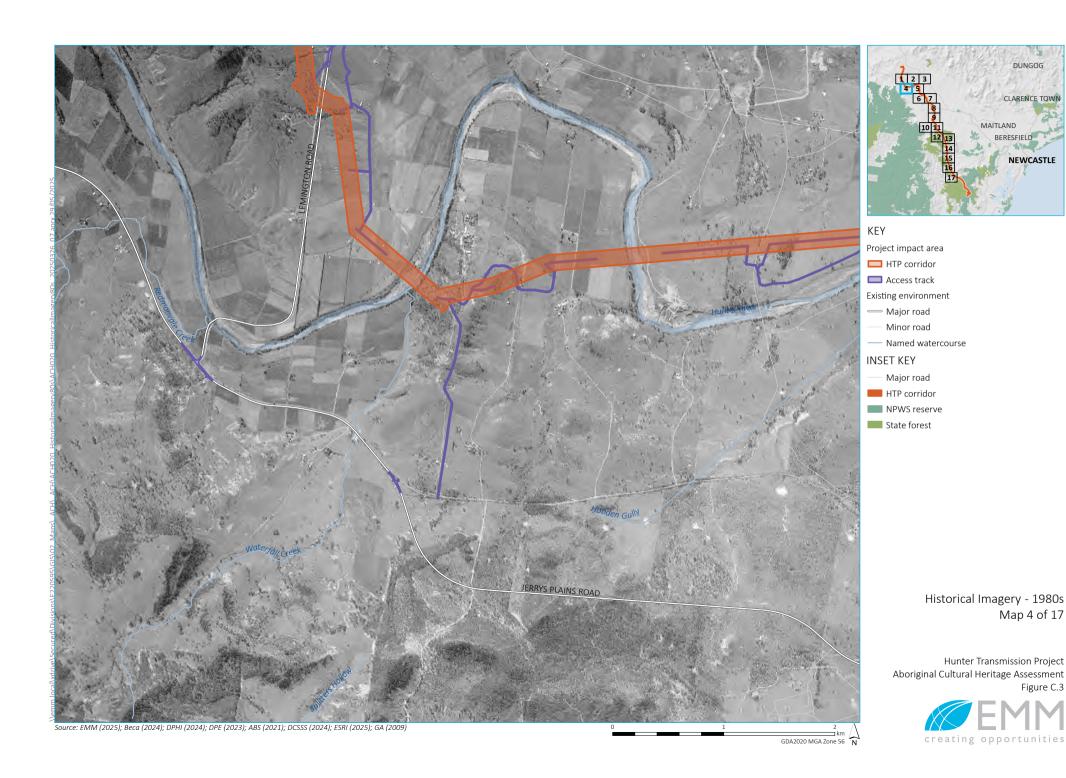
Minor road

— Named watercourse

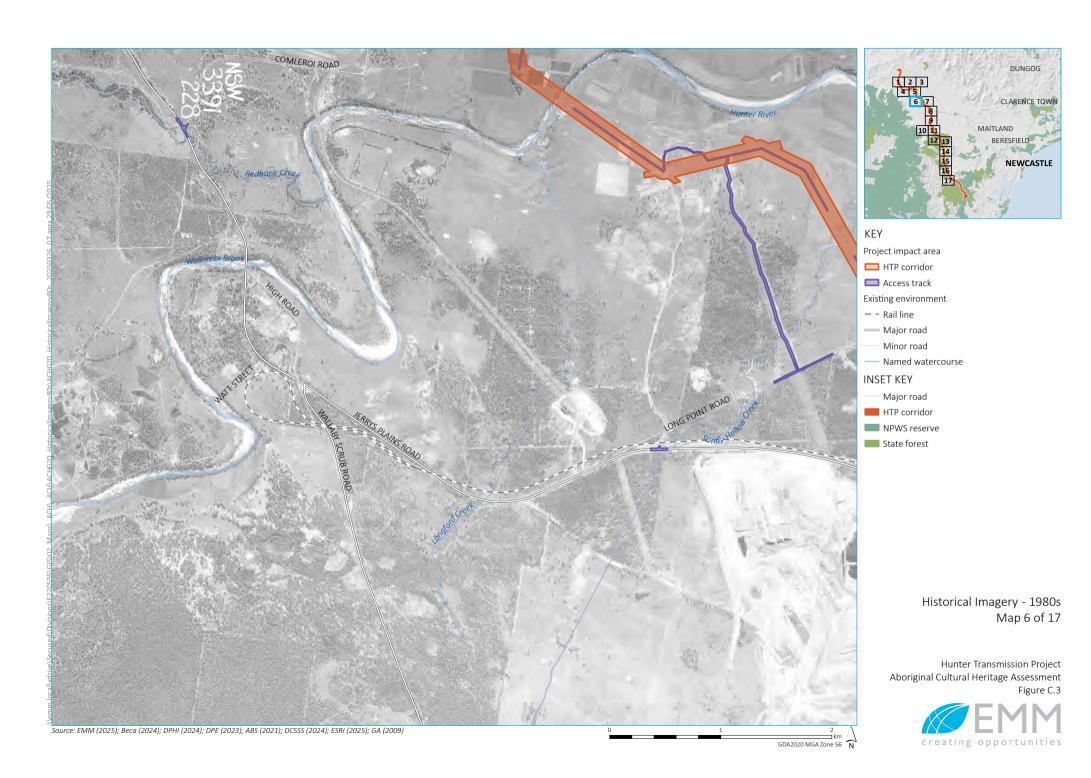
Major road

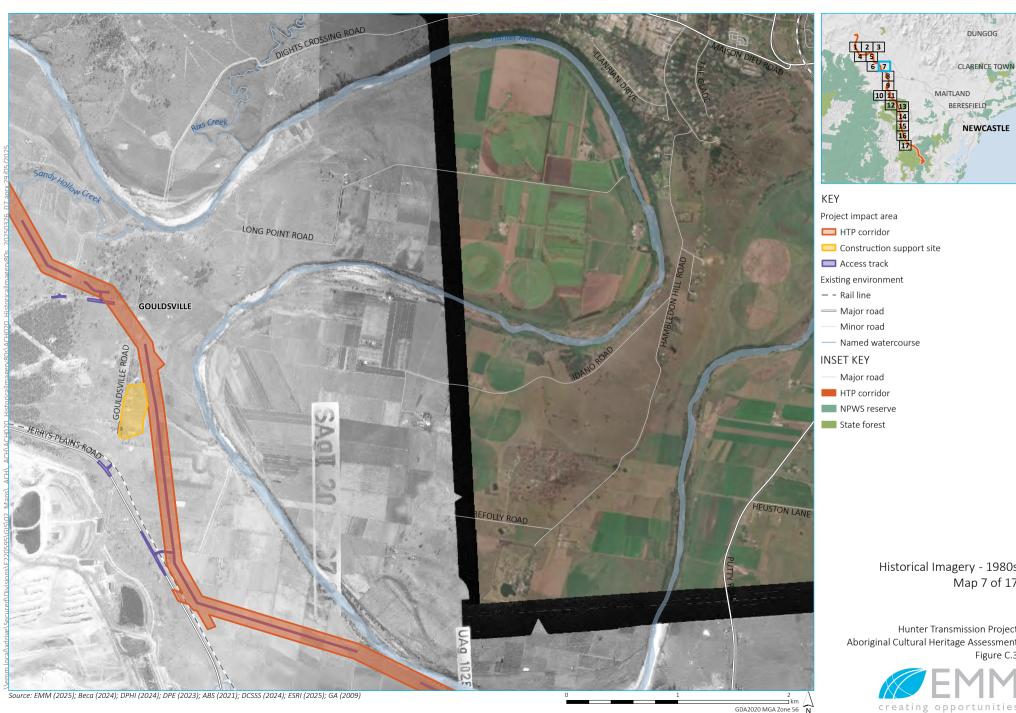
Historical Imagery - 1980s Map 3 of 17





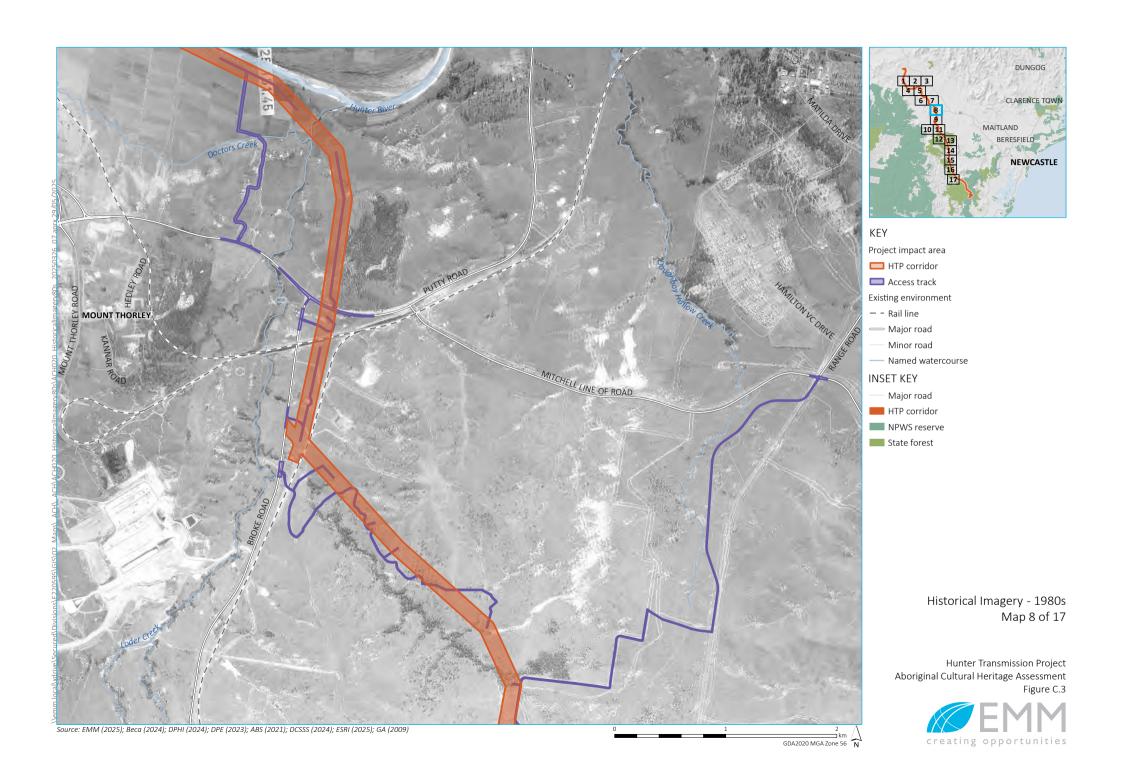


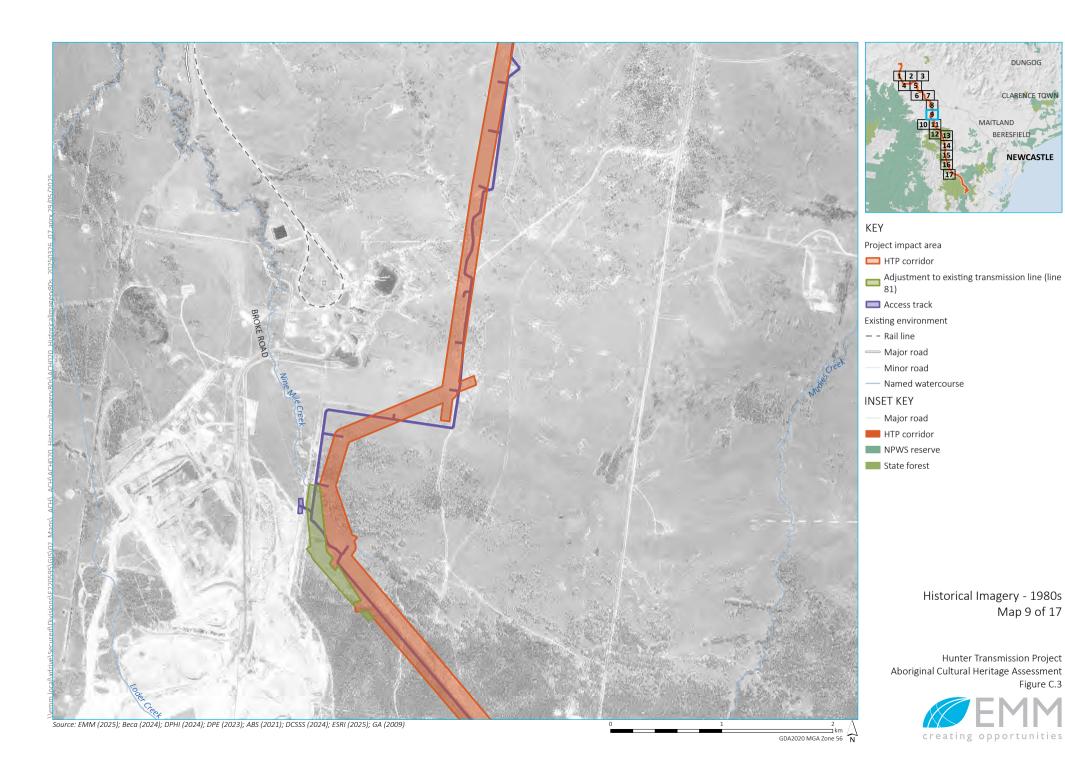




Historical Imagery - 1980s Map 7 of 17











Access track

Existing environment

— Major road

Minor road

— Named watercourse

NPWS reserve

Major road

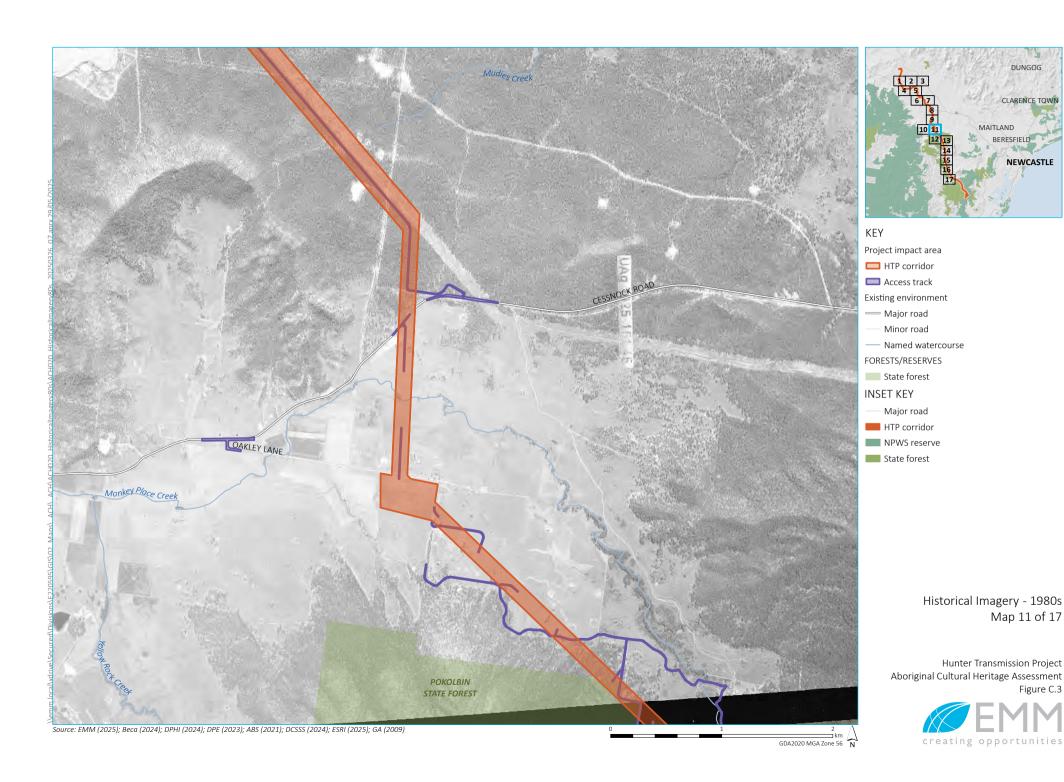
HTP corridor

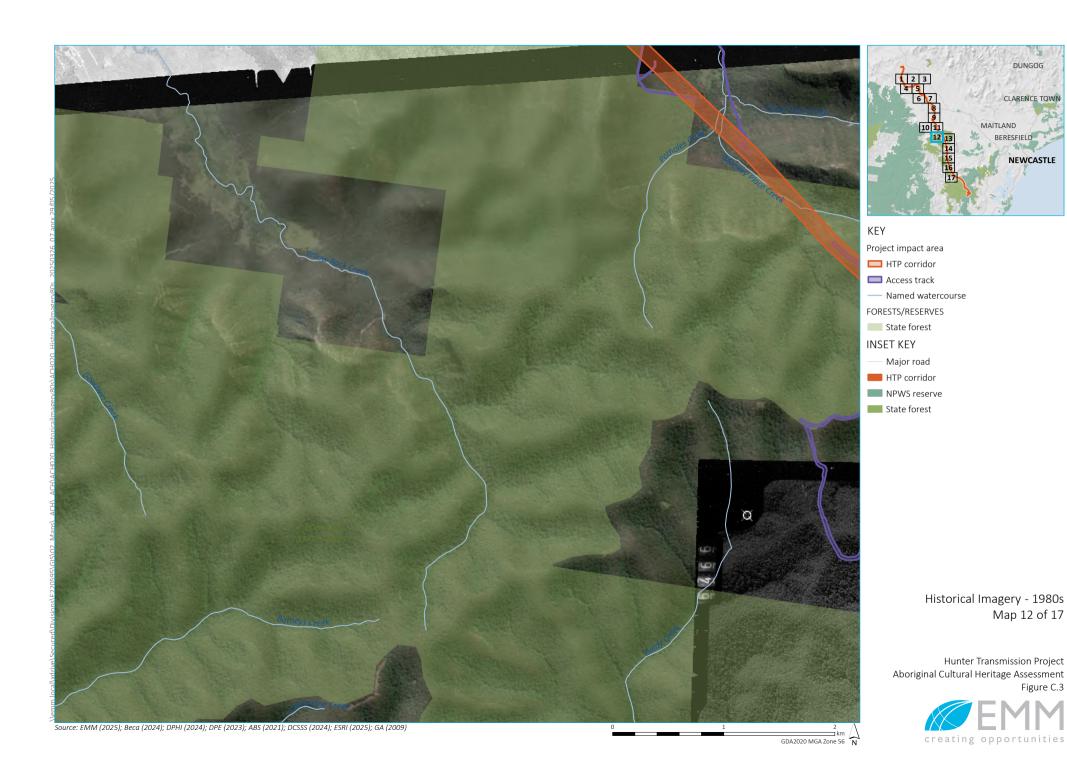
NPWS reserve

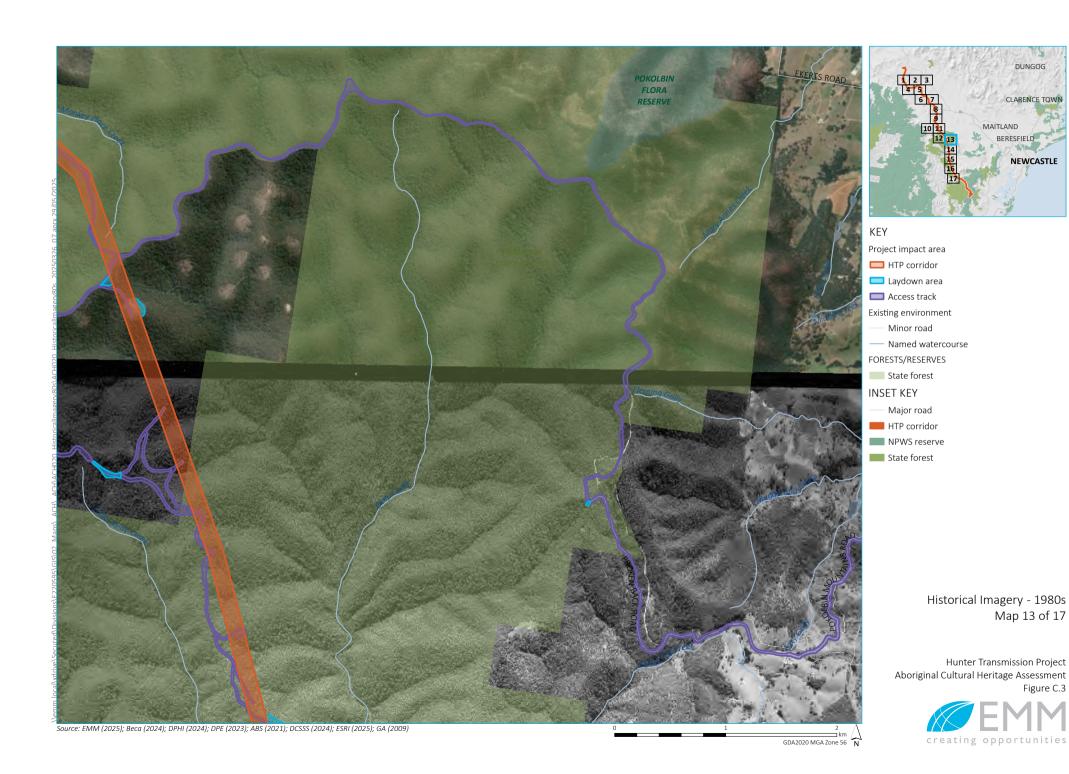
State forest

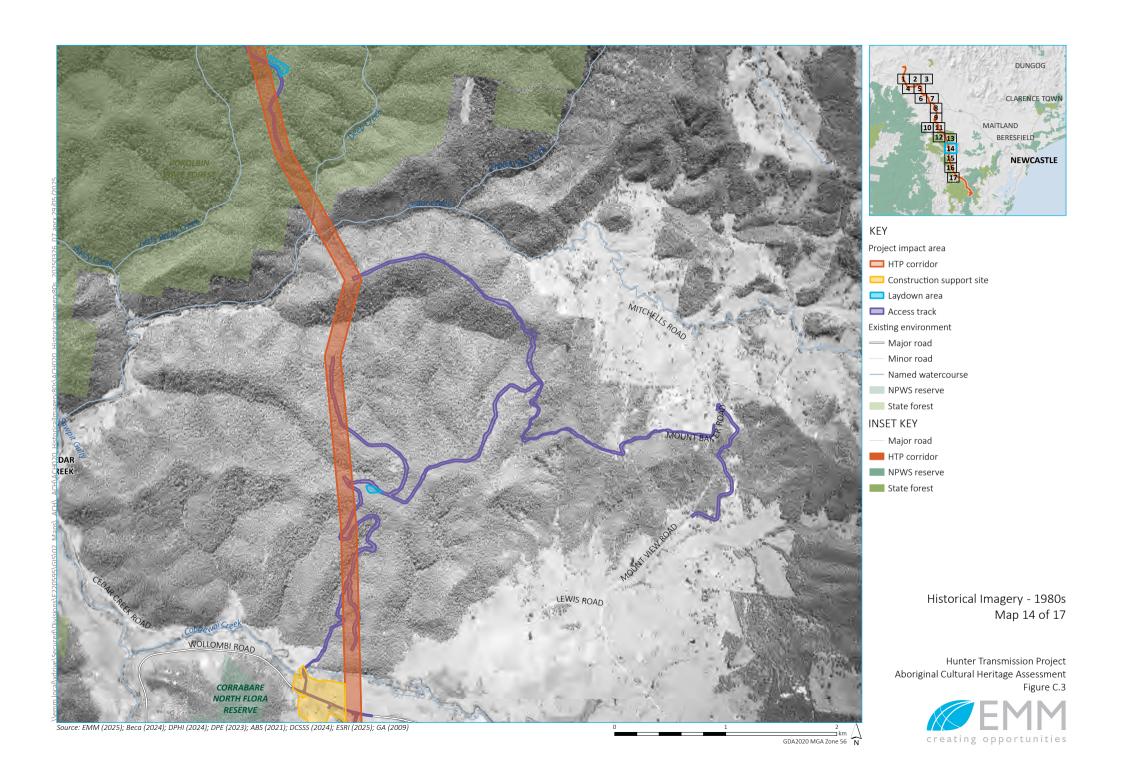
Historical Imagery - 1980s Map 10 of 17

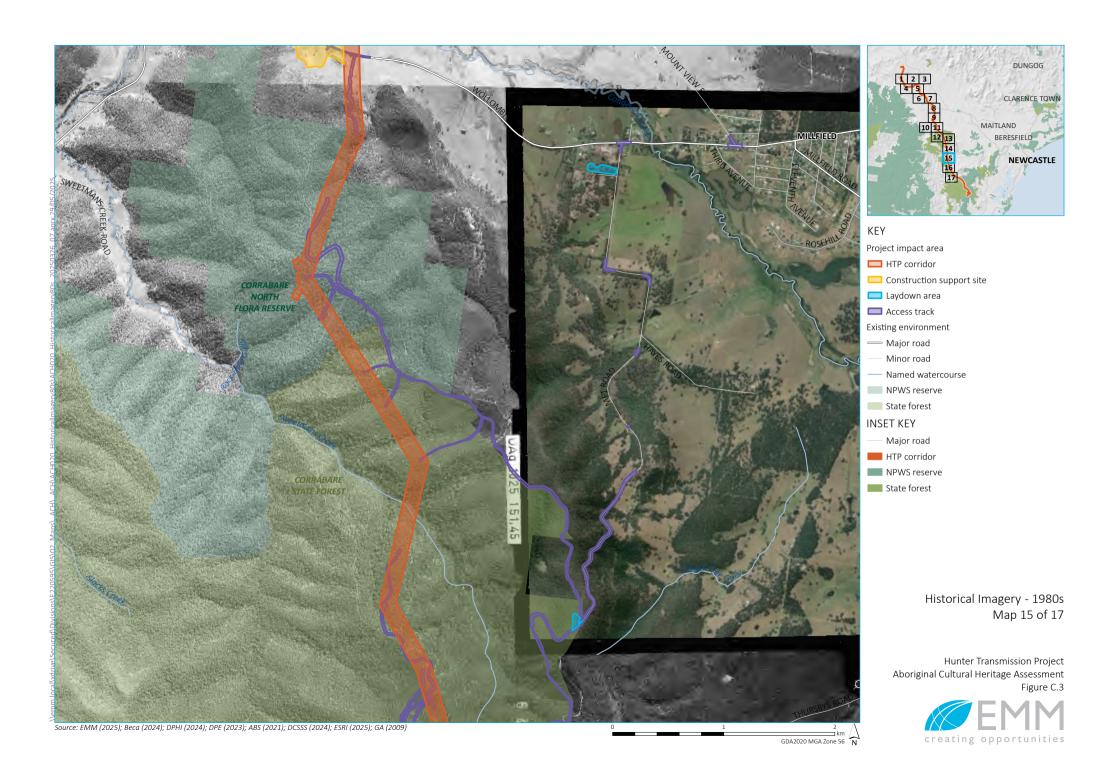


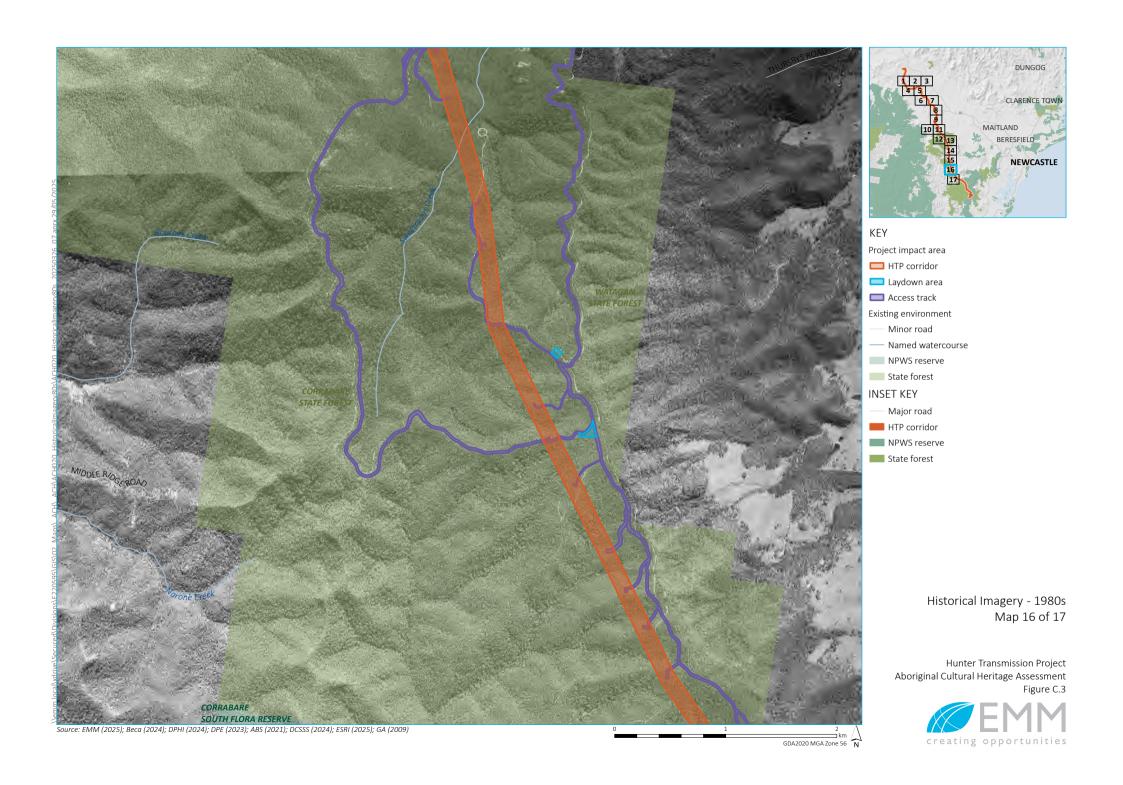


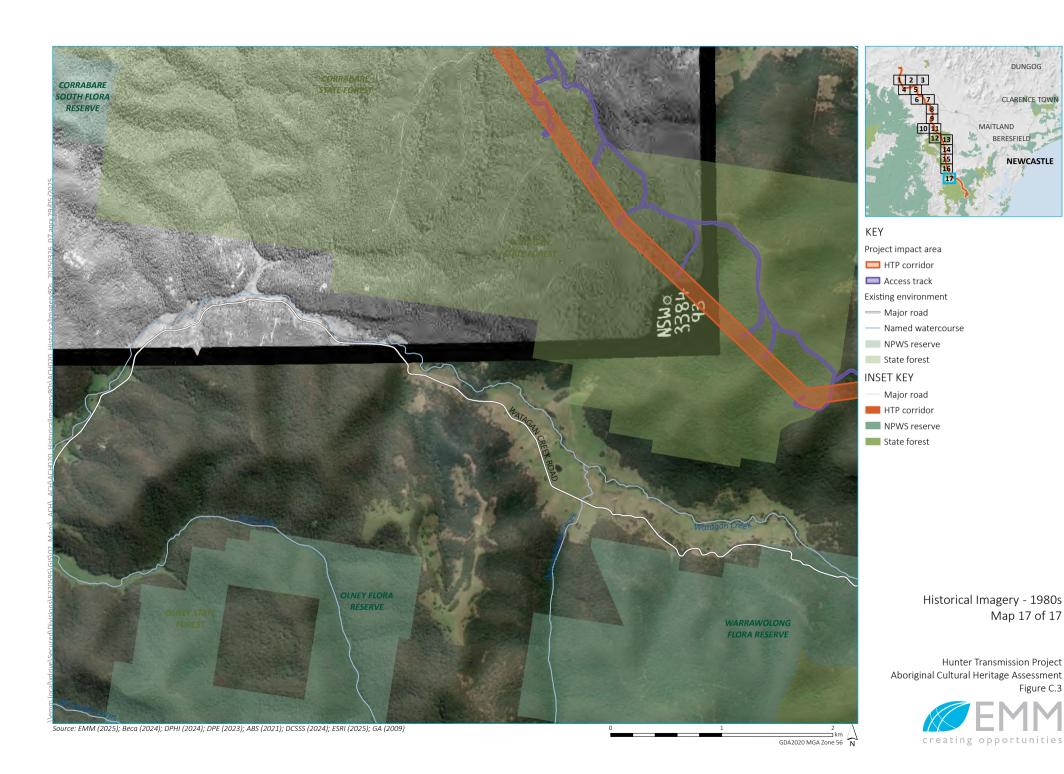












C.3 Brief history of the State forests

C.3.1 Pokolbin State Forest

Land was set aside for settlement in the Pokolbin region in 1829 and land grants were taken up by colonialists soon after (The Sydney Morning Herald 2004). Farming in the region primarily focussed on wheat, tobacco and dairy farming with viticulture rising to prominence after the first wine grapes were brought to the area by the Drayton and Tyrell families in the late 1850s (Parish of Pokolbin 2024; The Sydney Morning Herald 2004). The Village of Pokolbin was laid out between 1884 and 1885 before the administrative centre was moved to the current town of Cessnock in 1909 (The Sydney Morning Herald 2004).

The Pokolbin State Forest (No.716), approximately 9 kilometres west of Cessnock, was dedicated on 8 August 1919 (*Government Gazette of the State of New South Wales*, 8 August 1919:4416). The forest reserve covered initially covered 9400 acres (3804 hectares) of 'excellent timber country, some of it being virgin land' across the Parishes of Pokolbin, Milfield, Broke and Ovingham in County of Northumberland (*Government Gazette of the State of New South Wales*, 8 August 1919:4416; *The Cessnock Eagle and South Maitland Recorder*, 25 July 1919:3).

An additional 3900 acres (1578.3 hectares) were added to the reserve in 1920 and further extensions occurred in 1952 (*Government Gazette of the State of New South Wales*, 12 March 1920a:1556, 25 June 1920b:3589, 29 June 1984:3439).

The first road was constructed into the State forest in February of 1925 opening the area for timber cutting for the first time since the reserve was proclaimed (*The Cessnock Eagle and South Maitland Recorder*, 24 February 1925:7). In 1984, 90 hectares of the State forest was set aside for the Pokolbin Flora Reserve (*Government Gazette of the State of New South Wales*, 29 June 1984:3439).

C.3.2 Corrabare State Forest

Cedar cutting brought the first Europeans into the ranges north and west of Lake Macquarie from the 1820s (NSW National Parks and Wildlife Service 2023:7). Colonialists moved into the region from the Hawksbury River district following the establishment of Putty Road (Howes Valley Road) in 1823 (Wollombi Valley Progress Association 1981:14). Wheat and cedar cutting were the primarily industries of the region in the first half of the nineteenth century but wheat crops were devastated by rust in the 1870s and commercial cedar had been exhausted by the 1890s (NSW National Parks and Wildlife Service 2023:7; Wollombi Valley Progress Association 1981).

Corrabare State Forest (No.522), approximately 15 kilometres south west of Cessnock, was dedicated on 20 July 1917 (*Government Gazette of the State of New South Wales*, 10 May 1929:2028). The State forest initially covered 1030 acres (416.8 hectares) and an additional 320 acres (129.5 hectares) was added to the reserve in 1966 (*Government Gazette of the State of New South Wales*, 10 May 1929:2028, 11 November 1966:4669). The northeast section of the Corrabare State Forest was dedicated in 1985 (NSW National Parks and Wildlife Service 2023:7).

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C.3.3 Watagan State Forest

Logging brought the first Europeans into the Watagan region in the 1820s in the first half of the nineteenth century and the industry continued into the middle of the twentieth century (Lake Mac Familiy Life 2019). Watagan State Forest (No.123), approximately 15 kilometres south of Cessnock, was dedicated on 27 May 1914 (*Government Gazette of the State of New South Wales*, 27 May 1914:3080). The State forest initially covered 21,300 acres (8619.8 hectares) and an additional 157 acres 7 perches (63.8 hectares) was added to the reserve in 1942 (*Government Gazette of the State of New South Wales*, 27 May 1914:3080, 2 October 1942:2719). In 1946 the logging was a mechanised process and Watagan State Forest yielded 400,000 super-feet¹³ of timber per week, which were milled for housing, mines, furniture, poles, boxes, sawdust and firewood (*Newcastle Morning Herald and Miners' Advocate*, 1 June 1946:5).

C.3.4 Olney State Forest

Cedar cutting brought the first Europeans into the Olney State Forest region from the 1830s and cedar stands in the region were exhausted by 1890s (NSW National Parks and Wildlife Service 2010:22). Saw mills were established in the Olney and Watagan State forests from the 1880s and timber-getting expanded to encompass all commercial species (NSW National Parks and Wildlife Service 2010:22). Olney State Forest (No.124), approximately 20 kilometres south of Cessnock, was dedicated on 15 July 1914 (Government Gazette of the State of New South Wales, 15 July 1914b:4065). At dedication, the Forest covered an area of 34,796 acres (14,081.4 hectares), which was extended in 1919, 1920 and 1921 (Government Gazette of the State of New South Wales, 29 August 1919b:4744, 6 February 1920c:869–70, 7 October 1921:5767). Pine was planted in the forest in 1920 and a portion of the forest was closed for regeneration in 1921 as the area was 'practically depleted of good commercial timber' (The Gosford Times and Wyong District Advocate, 29 July 1920:5; The Maitland Daily Mercury, 11 January 1921:4).

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One 'super foot' equals a piece of timber measuring one square foot (0.09 m²) of timber, one inch thick (2.54 centimetres) (1953 'Super Feet', The Sunday Herald (Sydney, NSW: 1949–1953), 22 February, p. 13. (Home Handyman), viewed 31 Mar 2024, http://nla.gov.au/nla.news-article18510945).