Australian Government
Department of the Environment and Energy

Title of Proposal - Tahmoor South Project

Section 1 - Summary of your proposed action

Provide a summary of your proposed action, including any consultations undertaken.

1.1 Project Industry Type

Mining

1.2 Provide a detailed description of the proposed action, including all proposed activities.

The Tahmoor Mine (Tahmoor Mine) is an underground mining operation located in the Southern Coalfields of NSW, approximately 10 kilometres south of Picton, and approximately 80 kilometres south of Sydney(refer to Figure 1 – Regional Context). Tahmoor Mine is operated by Tahmoor Coal Pty Ltd (Tahmoor Coal).

Tahmoor Mine extracts approximately 3 million tonnes per annum (Mtpa) of Run-of-Mine (ROM) coal from the Bulli seam, exporting this coal to international customers via the Port Kembla Coal Terminal. The product coal is marketed as high quality coking coal used for steel manufacturing. A minor and secondary thermal coal product is also marketed.

The first coal was mined at Tahmoor Mine in 1979 by bord and pillar extraction methods and since 1987 coal has been produced using modern longwall extraction methods. Tahmoor Mine is planned to continue mining within existing approved extraction areas at Tahmoor North until 2022.

Tahmoor South Project – the proposed action

The Tahmoor South Project proposes to continue underground longwall mining which will extend the Tahmoor Mine life for an additional 18 to 20 years to 2040. Mining and infrastructure capacity upgrades are proposed to increase average ROM coal production to 4.4 Mtpa.

In relation to the NSW State planning approval process, Director-General's Requirements (DGRs) were issued for the project in 2012 and were updated and reissued in 2013. An environmental impact statement (EIS) for the Tahmoor South Project was substantially completed in 2014, but not submitted to the NSW Department of Planning and Environment (DP&E) for adequacy review. The project was placed on hold and subsequently withdrawn in late 2015 due to the downturn in the coal mining industry. A decision was made to recommence studies to finalise the EIS in early 2017. Accordingly, a request for the Secretary's Environmental Assessment Requirements (SEARs) for the project was submitted to the DP&E in May 2017.

An EIS for the updated Tahmoor South Project is currently being prepared for submission to DP&E and will address a range of matters including those identified in the SEARs, which were

issued on 9 June 2017 in accordance with Clause 2 Part 2 in Schedule 2 of the Environmental Planning and Assessment Regulation 2010 (the EP&A Regulation).

Key components of the Tahmoor South Project are:
• Development of new underground roadways, gas drainage and underground mine infrastructure;
• Extraction of coal using longwall mining methods within consolidated coal leases and mining leases (CCL747, CCL716 and ML1642) from additional longwall panels shown on Figure 2;
• Construction of up to four additional vent shafts to support mine ventilation (TSC1,TSC2, TSC3, TSE1; refer to Figure 2);
• Construction of an expanded Reject Emplacement Area (REA) for onsite management of fine and coarse reject materials generated during coal processing and mining activities (refer Figure 4);
• Upgrade of existing Coal Handling and Processing Plant (CHPP), including a new reject screen, thickener and belt filter press to enable increased mine output;
• Construction of additional mine infrastructure, including site access intersection upgrade, additional car parking, additional mine laydown pad, noise mitigation works and additional amenities and support buildings; and
• Life-of-mine rehabilitation of the disturbed areas.

Figure 2 – Proposed Mine Plan and Ventilation Shaft shows the area the subject of the Tahmoor South Project.

The Proposed Action is confined to the components of the Tahmoor South Project that may have the potential to impact upon Matters of National Environmental Significance (MNES) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). That is, the extraction of coal from the additional longwall panels as shown on Figures 2 and 3, and the expanded portion of the REA (refer Figure 4). The currently approved operations at Tahmoor Mine, including the existing approved mine layout, pit top facilities, and approved REA footprint do not form part of the Proposed Action.

1.3 What is the extent and location of your proposed action? Use the polygon tool on the map below to mark the location of your proposed action.

Area	Point	Latitude	Longitude
Tahmoor South Project - Footprint of proposed longwall panels	1	-34.262483736578	150.55533028333
Tahmoor South Project - Footprint of proposed longwall panels	2	-34.249501402869	150.57953453749
Tahmoor South Project - Footprint of proposed	3	-34.248756454102	150.57901955335

Area	Point	Latitude	Longitude
longwall panels			
Tahmoor South Project - Footprint of proposed longwall panels	4	-34.247869601733	150.58082199781
Tahmoor South Project - Footprint of proposed longwall panels	5	-34.249501402869	150.58245278089
Tahmoor South Project - Footprint of proposed longwall panels	6	-34.251523373424	150.58125115125
Tahmoor South Project - Footprint of proposed longwall panels	7	-34.250955807647	150.5805215904
Tahmoor South Project - Footprint of proposed longwall panels	8	-34.252232825262	150.5782899925
Tahmoor South Project - Footprint of proposed longwall panels	9	-34.264150721712	150.59112168043
Tahmoor South Project - Footprint of proposed longwall panels	10	-34.260958593579	150.59476948469
Tahmoor South Project - Footprint of proposed longwall panels	11	-34.273265354008	150.60867405622
Tahmoor South Project - Footprint of proposed longwall panels	12	-34.272697934921	150.61562634199
Tahmoor South Project - Footprint of proposed longwall panels	13	-34.243435199704	150.62026119917
Tahmoor South Project - Footprint of proposed longwall panels	14	-34.243719008431	150.62356568067
Tahmoor South Project - Footprint of proposed longwall panels	15	-34.236658982174	150.62489605635
Tahmoor South Project - Footprint of proposed longwall panels	16	-34.2371556868	150.630088813
Tahmoor South Project - Footprint of proposed longwall panels	17	-34.240100375472	150.62974549025
Tahmoor South Project - Footprint of proposed longwall panels	18	-34.24031324054	150.63360787123

Area	Point	Latitude	Longitude
Tahmoor South Project - Footprint of proposed longwall panels	19	-34.292519868818	150.62382317274
Tahmoor South Project - Footprint of proposed longwall panels	20	-34.292271680303	150.6200037071
Tahmoor South Project - Footprint of proposed longwall panels	21	-34.294682623409	150.619617469
Tahmoor South Project - Footprint of proposed longwall panels	22	-34.293831710213	150.61476803511
Tahmoor South Project - Footprint of proposed longwall panels	23	-34.298334361341	150.60824490278
Tahmoor South Project - Footprint of proposed longwall panels	24	-34.306878098739	150.59704399793
Tahmoor South Project - Footprint of proposed longwall panels	25	-34.277946415351	150.56498623579
Tahmoor South Project - Footprint of proposed longwall panels	26	-34.275144902379	150.56841946333
Tahmoor South Project - Footprint of proposed longwall panels	27	-34.26244826845	150.55533028333
Tahmoor South Project - Footprint of proposed longwall panels	28	-34.26244826845	150.55533028333
Tahmoor South Project - Footprint of proposed longwall panels	29	-34.262483736578	150.55533028333
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	1	-34.25301524616	150.59622246558
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	2	-34.252962037974	150.59622246558
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	3	-34.25315713449	150.59671599204

Area	Point	Latitude	Longitude
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	4	-34.253139398462	150.59826094443
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	5	-34.253086190355	150.59841114814
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	6	-34.253050718265	150.59849697882
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	7	-34.253103926395	150.59862572486
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	8	-34.253228078566	150.59871155554
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	9	-34.253352230554	150.59873301322
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	10	-34.253405438493	150.59875447089
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	11	-34.253352230554	150.59890467459
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	12	-34.253281286583	150.59909779364
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	13	-34.253299022581	150.59922653968
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	14	-34.253405438493	150.59933382804
Tahmoor South Project - Reject Emplacement	15	-34.254895247119	150.59999901587

Area	Point	Latitude	Longitude
Area Extension - Area 2			
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	16	-34.255001661012	150.59989172751
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	17	-34.25533863745	150.59987026984
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	18	-34.255657877041	150.5995913201
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	19	-34.256118998756	150.59916216666
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	20	-34.256792941332	150.59776741797
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	21	-34.260428591051	150.59394795233
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	22	-34.260198042321	150.5927463227
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	23	-34.260109369564	150.59298235709
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	24	-34.260073900435	150.59334713751
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	25	-34.259985227547	150.59364754492
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	26	-34.259807881491	150.59396941001

Area	Point	Latitude	Longitude
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	27	-34.25869059274	150.5951281243
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	28	-34.257520083846	150.59637266928
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	29	-34.257413673139	150.59656578833
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	30	-34.257236321662	150.59684473807
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	31	-34.25691708806	150.59703785712
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	32	-34.256438235386	150.5972095185
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	33	-34.256154469553	150.59710223014
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	34	-34.255870702762	150.5968232804
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	35	-34.255214488393	150.59617955023
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	36	-34.254966189729	150.59607226187
Tahmoor South Project - Reject Emplacement Area Extension - Area 2	37	-34.25301524616	150.59622246558
Tahmoor South Project	1	-34.253550518125	150.58847088153

Area	Point	Latitude	Longitude
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	2	-34.25409146266	150.58807391459
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	3	-34.254286556557	150.58779496485
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	4	-34.255563523622	150.586410945
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	5	-34.255794085054	150.58627147013
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	6	-34.255962571855	150.58623928363
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	7	-34.256139926018	150.58620709712
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	8	-34.258605110161	150.58766621882
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	9	-34.259092817889	150.58807391459
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	10	-34.259208093848	150.58823484713
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	11	-34.259314502285	150.58844942385
Tahmoor South Project - Reject Emplacement Area Extension - Area	12	-34.259491849381	150.58937210375

Area	Point	Latitude	Longitude
1 Tahmoor South Project - Reject Emplacement Area Extension - Area 1	13	-34.259580522789	150.5902196818
1 Tahmoor South Project - Reject Emplacement Area Extension - Area 1	14	-34.259607124793	150.5908741408
1 Tahmoor South Project - Reject Emplacement Area Extension - Area 1	15	-34.259784471273	150.59118527705
1 Tahmoor South Project - Reject Emplacement Area Extension - Area 1	16	-34.260130295832	150.5917968207
1 Tahmoor South Project - Reject Emplacement Area Extension - Area 1	17	-34.260263304899	150.59263366992
1 Tahmoor South Project - Reject Emplacement Area Extension - Area 1	18	-34.260440649995	150.59394258792
1 Tahmoor South Project - Reject Emplacement Area Extension - Area 1	19	-34.261256432621	150.59381384188
1 Tahmoor South Project - Reject Emplacement Area Extension - Area 1	20	-34.26218747921	150.59323448474
1 Tahmoor South Project - Reject Emplacement Area Extension - Area 1	21	-34.261894865678	150.59048790271
1 Tahmoor South Project - Reject Emplacement Area Extension - Area 1	22	-34.262692900186	150.59041280085
1 Tahmoor South Project - Reject Emplacement Area Extension - Area 1	23	-34.262258415671	150.58705467517
1 Tahmoor South Project	24	-34.260387446506	150.58747309977

Area	Point	Latitude	Longitude
- Reject Emplacement Area Extension - Area 1			
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	25	-34.260201234027	150.58738726908
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	26	-34.25985540976	150.5852200442
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	27	-34.25969579808	150.58494109446
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	28	-34.259420910588	150.58446902568
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	29	-34.259261298083	150.5844153815
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	30	-34.259057348331	150.5842973643
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	31	-34.258711519361	150.5840291434
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	32	-34.258631712474	150.5840291434
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	33	-34.258480965924	150.58398622805
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	34	-34.258019857156	150.58390039737
Tahmoor South Project - Reject Emplacement Area Extension - Area	35	-34.257780434298	150.5839111262

Area	Point	Latitude	Longitude
1			
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	36	-34.256503500882	150.58413643176
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	37	-34.256210867578	150.58434027964
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	38	-34.255918233256	150.58473724658
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	39	-34.255563523622	150.58518785769
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	40	-34.255377300465	150.58570284182
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	41	-34.253940707975	150.58775204951
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	42	-34.253550518125	150.58844942385
Tahmoor South Project - Reject Emplacement Area Extension - Area 1	43	-34.253550518125	150.58847088153
Tahmoor South Project - powerlines	1	-34.26054971941	150.59407052298
Tahmoor South Project - powerlines	2	-34.261418703848	150.59394177695
Tahmoor South Project - powerlines	3	-34.267199881968	150.5898219039
Tahmoor South Project - powerlines	4	-34.267501343545	150.58958586951
Tahmoor South Project - powerlines	5	-34.269310090312	150.58939275046
Tahmoor South Project - powerlines	6	-34.269469683747	150.58924254675

Area	Point	Latitude	Longitude
Tahmoor South Project - powerlines	7	-34.271083333688	150.58896359702
Tahmoor South Project - powerlines	8	-34.273211176378	150.58930691977
Tahmoor South Project - powerlines	9	-34.273246639966	150.58950003882
Tahmoor South Project - powerlines	10	-34.275888635247	150.59014376898
Tahmoor South Project - powerlines	11	-34.276633343749	150.5952077796
Tahmoor South Project - powerlines	12	-34.276686536961	150.59537944098
Tahmoor South Project - powerlines	13	-34.280285866108	150.59471425314
Tahmoor South Project - powerlines	14	-34.281349677727	150.59763249655
Tahmoor South Project - powerlines	15	-34.281402867955	150.59758958121
Tahmoor South Project - powerlines	16	-34.280303596412	150.59462842246
Tahmoor South Project - powerlines	17	-34.276739730139	150.59531506796
Tahmoor South Project - powerlines	18	-34.275924097706	150.59003648062
Tahmoor South Project - powerlines	19	-34.27328210354	150.5894356658
Tahmoor South Project - powerlines	20	-34.273228908174	150.58924254675
Tahmoor South Project - powerlines	21	-34.271101065933	150.58892068167
Tahmoor South Project - powerlines	22	-34.269434218566	150.58915671606
Tahmoor South Project - powerlines	23	-34.269292357689	150.58934983511
Tahmoor South Project - powerlines	24	-34.267465877533	150.58952149649
Tahmoor South Project - powerlines	25	-34.261400969562	150.5938988616
Tahmoor South Project - powerlines	26	-34.26053198494	150.59402760764
Tahmoor South Project - powerlines	27	-34.260514250466	150.59404906531
Tahmoor South Project - powerlines	28	-34.26054971941	150.59407052298
Tahmoor South	1	-34.281753471242	150.59937941312

Area	Point	Latitude	Longitude
(Central) #2 Ventilation Shaft & Fan Site			
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	2	-34.280760585586	150.60078489064
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	3	-34.281035403326	150.60113894223
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	4	-34.281709146239	150.60134279012
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	5	-34.281913041057	150.60136424779
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	6	-34.282187855028	150.60133206128
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	7	-34.28344666883	150.60058104276
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	8	-34.283420074367	150.60051666974
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	9	-34.282569047113	150.60093509435
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	10	-34.282551317287	150.60084926366
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	11	-34.282613371662	150.60076343297
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	12	-34.28263996638	150.60065614461
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	13	-34.282533587457	150.60061322927
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	14	-34.282294234388	150.60054885625
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	15	-34.282276504504	150.60036646604
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	16	-34.282249909671	150.60030209302

Area	Point	Latitude	Longitude
Shaft & Fan Site			
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	17	-34.282338559082	150.60004460096
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	18	-34.282382883753	150.59994804143
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	19	-34.282125800339	150.59979783773
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	20	-34.281966230928	150.59969054937
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	21	-34.281753471242	150.59937941312
Tahmoor South (Central) #2 Ventilation Shaft & Fan Site	22	-34.281753471242	150.59937941312
TSC2	1	-34.282826661313	150.60015188932
TSC2	2	-34.282826661313	150.60014116048
TSC2	3	-34.28303055342	150.60003387212
TSC2	4	-34.283021688556	150.59972273587
TSC2	5	-34.283128066861	150.59958326101
TSC2	6	-34.283695415547	150.59900390386
TSC2	7	-34.283633361971	150.59901463269
TSC2	8	-34.283198985656	150.59915410756
TSC2	9	-34.283003958825	150.59942232846
TSC2	10	-34.28290644524	150.59948670148
TSC2	11	-34.282817796428	150.59927212476
TSC2	12	-34.282613903805	150.59930431127
TSC2	13	-34.282534119601	150.5994330573
TSC2	14	-34.282605038898	150.59951888799
TSC2	15	-34.282844391081	150.59992658376
TSC2	16	-34.282826661313	150.60002314328
TSC2	17	-34.282826661313	150.60015188932
TSC2	1	-34.282631633618	150.59793102025
TSC2	2	-34.282649363427	150.59793102025
TSC2	3	-34.282702552832	150.59798466443
TSC2	4	-34.282808931542	150.59796320676
TSC2	5	-34.282924174991	150.59790956258
TSC2	6	-34.282986229091	150.59783446073
TSC2	7	-34.282888715485	150.59780227422
TSC2	8	-34.282631633618	150.59793102025

Australian Government
Department of the Environment and Energy

Area	Point	Latitude	Longitude
Tahmoor South (Central) #1 Ventilation Shaft & Fan Site	1	-34.253420401481	150.58069859945
Tahmoor South (Central) #1 Ventilation Shaft & Fan Site	2	-34.253411533495	150.58070932828
Tahmoor South (Central) #1 Ventilation Shaft & Fan Site	3	-34.252427181251	150.58231865369
Tahmoor South (Central) #1 Ventilation Shaft & Fan Site	4	-34.252453785517	150.58241521322
Tahmoor South (Central) #1 Ventilation Shaft & Fan Site	5	-34.252622279007	150.58238302671
Tahmoor South (Central) #1 Ventilation Shaft & Fan Site	6	-34.252569070573	150.58271562063
Tahmoor South (Central) #1 Ventilation Shaft & Fan Site	7	-34.252746431889	150.58286582433
Tahmoor South (Central) #1 Ventilation Shaft & Fan Site	8	-34.252852848499	150.58360611402
Tahmoor South (Central) #1 Ventilation Shaft & Fan Site	9	-34.253198701553	150.58229719602
Tahmoor South (Central) #1 Ventilation Shaft & Fan Site	10	-34.253296249593	150.58216844999
Tahmoor South (Central) #1 Ventilation Shaft & Fan Site	11	-34.25335832556	150.58209334813
Tahmoor South (Central) #1 Ventilation Shaft & Fan Site	12	-34.254085497759	150.58156763517
Tahmoor South (Central) #1 Ventilation Shaft & Fan Site	13	-34.253420401481	150.58069859945

1.5 Provide a brief physical description of the property on which the proposed action will take place and the location of the proposed action (e.g. proximity to major towns, or for off-shore actions, shortest distance to mainland).

Tahmoor Mine is located approximately 80 km southwest of the Sydney Central Business District and 50 km northwest of Wollongong and Port Kembla, in the Southern Coalfields of NSW (refer to Figure 1 – Regional Context). It is approximately 30 km southwest of the suburb of Campbelltown and to the west of the M31 Hume Motorway.

Tahmoor Mine's existing surface facilities area is located approximately 2.5 km south of the village of Tahmoor and approximately four kilometres north of the village of Bargo.

The proposed action would be located immediately south of the existing coal mining operations of Tahmoor Mine, and across Tahmoor Coal's existing mining leases CCL 747, CCL 716, Mining Lease 1642, and Exploration Authority 206.

1.6 What is the size of the proposed action area development footprint (or work area) including disturbance footprint and avoidance footprint (if relevant)?

Proposed Action Area 1 (Water) Proposed Longwall – 2,411.8ha. Proposed Action Area 2 (Threatened Sp & Communities) - 50.2ha

1.7 Is the proposed action a street address or lot?

Street Address

2975 Remembrance Driveway
Tahmoor NSW 2573
Australia

1.8 Primary Jurisdiction.

New South Wales

1.9 Has the person proposing to take the action received any Australian Government grant funding to undertake this project?

No

1.10 Is the proposed action subject to local government planning approval?

No

1.11 Provide an estimated start and estimated end date for the proposed action.

Start date 01/2019

End date 12/2040

1.12 Provide details of the context, planning framework and State and/or Local government requirements.

Commonwealth Legislation

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

The *EPBC Act* provides that an action that has, will have, or is likely to have a significant impact on a MNES, may not be undertaken without prior approval of the Commonwealth Minister for the Environment. The Proposed Action is being referred to DoEE under the provisions of Division 1, Part 7 of the EPBC Act.

MNES that could be significantly impacted by the Proposed Action have been identified within the Proposed Action Area as follows:

A water resource (the water trigger), in relation to a large coal mining development, if the action has or will have or is likely to have a significant impact on a water resource. The Proposed Action includes underground coal mining via longwall methods that will cause mine subsidence, which has the potential to impact on water resources through potential interactions with surface water and groundwater, as well as potential changes to hydrological characteristics and water quality. The Proposed Action could also add to potential cumulative impacts from other underground coal mining within the region and other groundwater users, such as licensed irrigation bores and registered stock and domestic bores;

Listed threatened ecological community – 'Shale Sandstone Transition Forest (**SSTF**)' listed as an Endangered Ecological Community (EEC) under the *EPBC Act*. Approximately 41 hectares of this EEC could be cleared as part of the Proposed Action for the establishment of the REA, mine ventilation, and Surface to In Seam (**SIS**) pre-gas drainage; andListed Threatened Species:

Persoonia bargoensis individuals listed as Vulnerable under the *EPBC Act*. Removal of an estimated 96 individuals (from an identified population of approximately 648 individual plants) is proposed as part of the Proposed Action from within the proposed REA, mine ventilation sites and SIS pre-gas drainage sites.

The Proposed Action would also result in the removal of an estimated 1860 individuals of *Grevillea parviflora* subsp. *parviflora* from the footprint of the REA (1848 individuals) and the ventilation shaft TS1 (12 plants). However, the REA population extends to the east of Charlies Point Road and is likely to include an additional 9,240 plants based on 20 hectares of habitat.

Approximately 40 *Pomaderris brunnea* individuals will also be removed along Teatree Hollow Creek for the proposed haul road. This equates to approximately 3.2 per cent of the population (assuming 1235 plants in the local population). Assessments of significance conducted by Niche Environment and Heritage (2017) for these two species concluded that the impact on these species will not be significant.

Other species identified as having the potential to be impacted by the Proposed Action, and assessments of significance for these species, is included in **Attachment 2** (Niche Environment and Heritage 2017). A likelihood of occurrence table is included as **Attachment 1** (Niche Environment and Heritage 2017).

New South Wales Legislation

Environmental Planning and Assessment Act 1979 (EP&A Act)

The Tahmoor South Project is State Significant Development in accordance with Clause 8 and Schedule 1 (Item 5) of *SEPP State and Regional Development 2011.* DGRs were issued for the project in 2012 and were updated and reissued in 2013. An EIS for the project was substantially completed in 2014, but not submitted to the DP&E for adequacy review. The project was placed on hold and subsequently withdrawn in late 2015 due to the downturn in the coal mining industry. A decision was made to recommence studies to finalise the EIS in early 2017. Accordingly, a request for the SEARs for the project was submitted to the DP&E in May 2017.The Tahmoor South Project will be seeking development consent under Part 4 Division 4.1 of the *EP&A Act*. An EIS is currently being prepared to address the SEARs.

The Proposed Action comprises a part of the Tahmoor South Project. If the Proposed Action is determined to be a “controlled action”, an assessment of the Proposed Action through an accredited assessment process under the *EPBC Act* could be carried out.

Other NSW State Legislation

A summary of potentially relevant NSW legislation is below.

Protection of the Environment Operations Act 1997

The Protection of the Environment Operations Act 1997 (**POEO Act**), administered by the Environment Protection Authority, regulates and requires licensing for environmental protection,

including for waste generation and disposal, and for water, air, land and noise pollution.

Under the POEO Act, an Environment Protection Licence (**EPL**) is required for premises at which a "scheduled activity" is conducted. Schedule 1 of the POEO Act lists activities that are scheduled activities for the purposes of this Act.

Tahmoor Mine is a scheduled activity (coal works and mining for coal) and currently operates under EPL1389. It is proposed that EPL1389 would be varied to include operations associated with the Tahmoor South Project.

Mining Act 1992

Tahmoor Mine currently holds Consolidated Coal Leases, CCL747 and CCL716 issued under the *Mining Act 199*2 over the Proposed Action Area.

A mining lease over proposed surface areas for ventilation shafts and gas drainage infrastructure will be required.

Threatened Species Conservation Act 1995

The *Threatened Species Conservation Act 1995* (**TSC Act**) provides for the conservation of threatened species, populations, and ecological communities.

A search of the TSC Act database identified 20 flora and 46 fauna (2 amphibians, 26 birds, 15 mammals, 1 gastropod and 2 reptiles) threatened species as having potential to be recorded within the locality.

Water Management Act 2000 and *Water Act 1912*

The *Water Management Act 2000* (WMA) and the *Water Act 1912* contain provisions for the licensing, allocation, capture and use of water resources.Generally, where a Water Sharing Plan (WSP) under the WM Act applies to the water sources in an area, the provisions of the *Water Act 1912* are superseded.

The WMA regulates water sources in NSW for all areas in which a WSP has commenced.

The Tahmoor South Project will involve interactions with surface water and groundwater which are the subject of WSP.

The WSPs which apply to the Tahmoor South Project include:

Greater Metropolitan Region Unregulated River Water Sources 2011 – Maldon Weir Management ZoneGreater Metropolitan Region Groundwater Sources 2011- Sydney Basin Nepean – Nepean Management Zone 2

Crown Lands Act 1989

The *Crown Lands Act 1989* provides for the administration and management of Crown land in the Eastern and Central Division of NSW. A lease, licence or, where appropriate, an easement, to use Crown land will be required where use of Crown land is required for the Proposed Action.

Heritage Act 1977

The purpose of the *Heritage Act 1977* is to protect and conserve non-indigenous cultural heritage, including scheduled heritage items, sites, and relics.

The archaeological survey to be undertaken as part of the EIS will identify any items of European heritage significance in the Tahmoor South Proposed Action Area and recommend appropriate management strategies.

No approval under Part 4 of the *Heritage Act 1977* will be required for the

Tahmoor South Project if development consent is granted (see section 89J of the *EP&A Act*).

Environmental Planning Instruments

The following State Environmental Planning Policies (**SEPPs**) and Local Environmental Plans (**LEPs**) are environmental planning instruments considered applicable to the Proposed Action.

SEPP (State and Regional Development) 2011

SEPP (State and Regional Development) 2011 categorises certain developments that are of state and regional significance requiring assessment under Part 4, Division 4.1 of the EP&A Act as State Significant Development (**SSD**) and subsequent determination by the Minister for Planning and Infrastructure or his delegate.

Schedule 1 of the SEPP identifies development for the purpose of mining as a matter to which Division 4.1 applies.

SEPP (Mining, Petroleum Production and Extractive Industries) 2007

SEPP (Mining, Petroleum Production and Extractive Industries) 2007 (**Mining SEPP**) identifies the importance of mining, petroleum production, and extractive industries within the NSW.

Clause 7 of the Mining SEPP identifies development which can be carried out with development consent and includes '*underground mining carried out on any land*' and '*facilities for the processing or transportation of minerals*' mined from that land or adjoining land.

State Environmental Planning Policy No.33 – Hazardous and Offensive Development

SEPP No.33 – Hazardous and Offensive Development (**SEPP 33**) requires the consent authority to consider whether an industrial proposal is a potentially hazardous industry or a potentially offensive industry. The aim of this policy is to link the permissibility of a proposal to its safety and pollution control performance. The assessment process establishes whether the proposal is potentially hazardous and if this is not the case, SEPP 33 is not applicable. If the storage of Dangerous Goods is required, then a licence will be applied for from the NSW WorkCover Authority.

State Environmental Planning Policy No.55 – Remediation of Land

SEPP No.55 – Remediation of Land provides that the consent authority must not consent to the carrying out of the Proposed Action unless it has considered certain matters relating to whether or not the Proposed Action Area land is contaminated.

State Environmental Planning Policy No.44 – Koala Habitat Protection

The aim of *SEPP No. 44 – Koala Habitat Protection* (SEPP 44) is to encourage the '*proper conservation and management of areas of natural vegetation that provide habitat for Koalas to*

ensure a permanent free-living population over their present range and reverse the current trend of koala population decline.' Schedule 1 lists the Local Government Area (LGAs) to which SEPP 44 applies, and requires an investigation be carried out to determine if 'core' or 'potential' Koala habitat is present and is likely to be disturbed. The Wollondilly LGA, in which the Proposed Action is located, is listed in Schedule 1.

Wollondilly Local Environment Plan 2011

The Proposed Action is located within the Wollondilly LGAs. The planning and development controls of the Council's LEP's is taken into consideration within the impact assessment for the Tahmoor South Project.

1.13 Describe any public consultation that has been, is being or will be undertaken, including with Indigenous stakeholders.

Public consultation commenced on 31 January 2012 for the Tahmoor South Project and is being undertaken in accordance with the Tahmoor South Stakeholder Engagement Strategy. The Strategy provides a framework to identify and appropriately consult with stakeholders that may be influenced by or have an interest in the Tahmoor South Project.

The following stakeholders have been identified for the Tahmoor South Project:

Local communityIndigenous stakeholders, including Cubbitch Bata Native Title group and Tharawal Local Aboriginal Land CouncilGovernment (State, Local Government and Commonwealth)Tahmoor Mine employees.

Public consultation is being undertaken through:

Formal face-to-face meetings and presentations with community groups, such as the Bargo Progress Association;Community information days;Project newsletter distribution;Tahmoor Mine Community Consultative Committee; andProject updates provided on Tahmoor Coal website.

A summary of stakeholder engagement activities conducted to date is provided in the document uploaded in Section 1.13.1.

1.14 Describe any environmental impact assessments that have been or will be carried out under Commonwealth, State or Territory legislation including relevant impacts of the project.

The Proposed Action comprises part of the Tahmoor South Project. If the Proposed Action is determined to be a "controlled action", an assessment of the Proposed Action through an

accredited assessment process under the EPBC Act will be carried out.

The contact officer details in the NSW DP&E for the Project are:

Mr Clay Preshaw

Director of Resource Assessments

NSW Department of Planning and Environment

GPO Box 39 Sydney NSW 2001

Phone: (02) 9228 6305

Email: Clay.Preshaw@planning.nsw.gov.au

An EIS is currently being prepared for submission to the DP&E and will address a range of matters including an assessment of the environmental issues and impacts identified in the SEARs.

The EIS will be supported by specialist assessment reports and will cover the following key issues and impacts, as highlighted in the SEARs for the Tahmoor South Project:

subsidence

land resources

water resources (groundwater and surface water)

biodiversity (terrestrial and aquatic ecology)

heritage (Aboriginal and European)

air quality

greenhouse gases

noise and vibration

traffic and transport

visual

waste

hazards

social and economic

rehabilitation and final landform.

The specialist assessments for the listed key issues will be undertaken in accordance with the relevant government guidelines and policies.

1.15 Is this action part of a staged development (or a component of a larger project)?

No

1.16 Is the proposed action related to other actions or proposals in the region?

No

Section 2 - Matters of National Environmental Significance

Describe the affected area and the likely impacts of the proposal, emphasising the relevant matters protected by the EPBC Act. Refer to relevant maps as appropriate. The interactive map tool can help determine whether matters of national environmental significance or other matters protected by the EPBC Act are likely to occur in your area of interest. Consideration of likely impacts should include both direct and indirect impacts.

Your assessment of likely impacts should consider whether a bioregional plan is relevant to your proposal. The following resources can assist you in your assessment of likely impacts:

• Profiles of relevant species/communities (where available), that will assist in the identification of whether there is likely to be a significant impact on them if the proposal proceeds;

• Significant Impact Guidelines 1.1 – Matters of National Environmental Significance;

• Significant Impact Guideline 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies.

2.1 Is the proposed action likely to have ANY direct or indirect impact on the values of any World Heritage properties?

No

2.2 Is the proposed action likely to have ANY direct or indirect impact on the values of any National Heritage places?

No

2.3 Is the proposed action likely to have ANY direct or indirect impact on the ecological character of a Ramsar wetland?

No

2.4 Is the proposed action likely to have ANY direct or indirect impact on the members of any listed species or any threatened ecological community, or their habitat?

Yes

2.4.1 Impact table

Species	Impact
Shale Sandstone Transition Forest (SSTF)	The proposed action is likely to have a

Species	Impact
	significant impact on SSTF. It would involve the removal of approximately 41 hectares of SSTF as a result of clearing required for the Project. Previous vegetation mapping by Tozer et al. 2006 has mapped approximately 2,947 hectares as occurring within 10km of the study area. The project will therefore result in reducing the extent of the SSTF in the locality by approximately 1.4 per cent.
Persoonia bargoensis	The proposed action is likely to have a significant impact on Persoonia bargoensis. Approximately 96 individuals of Persoonia bargoensis would be directly impacted by the proposed action, including approximately 45 hectares of potential habitat. Potential habitat includes: Shale Sandstone Transition Forest and Upper Georges Sandstone Woodland. A breakdown of the impacts associated with the proposed action includes: Approximately 41 hectares of potential habitat and approximately 94 individuals would be directly impacted by the REA. A further four hectares of potential habitat and approximately two individuals would be directly impacted by Vent shaft TS2. The species is unlikely to be impacted by subsidence given it occurs within vegetation types that are not solely reliant upon groundwater.
Grevillea parviflora subsp. parviflora (not significant impact)	The proposed REA surface infrastructure would remove an estimated 1,848 individuals of Grevillea parviflora subsp. parviflora. Vent shaft TS1 would impact approximately 12 individuals. The REA population extends to the east of Charlies Point Road and is likely to include an additional 9,240 plants based on 20 hectares of habitat. Furthermore, another site containing a population of the species within the tens of thousands was recorded within land owned by Tahmoor Coal located off Ashby Close, Bargo. This population would not be impacted by the Project. The project is unlikely to result in a significant impact on this species.
Pomaderris brunnea (not significant impact)	The proposed action would result in the removal of approximately 40 individuals along Teatree Hollow Creek for the proposed haul road. This equates to approximately 3.2 per

Species	Impact
	cent of the important population (assuming 1235 plants in the local population). Whilst Pomaderris brunnea occurs within a gully environment adjacent to Teatree Hollow Creek, it is highly unlikely subsidence would result in die back of the population due to the following: Teatree Hollow Creek undergoes extensive periods of dryness, thus the species is unlikely to be affected by any potential creek surface cracking or changes to groundwater as a result of subsidence. Much of the population was recorded on the top of the middle banks of Teatree Hollow Creek and not within areas inundated with water. Thus any changes to the water regime are unlikely to result in impacts to the population. The project is unlikely to result in a significant impact on this species.

2.4.2 Do you consider this impact to be significant?

Yes

2.5 Is the proposed action likely to have ANY direct or indirect impact on the members of any listed migratory species, or their habitat?

No

2.6 Is the proposed action to be undertaken in a marine environment (outside Commonwealth marine areas)?

No

2.7 Is the proposed action to be taken on or near Commonwealth land?

No

2.8 Is the proposed action taking place in the Great Barrier Reef Marine Park?

No

2.9 Is the proposed action likely to have ANY direct or indirect impact on a water resource related to coal/gas/mining?

Yes

2.9.1 Impact table

Water Resource	Impact
Greater Metropolitan Region Unregulated River Water Sources 2011 – Maldon Weir Management Zone	Results of initial groundwater numerical modelling conducted for the project indicate the impacts of the proposed development on groundwater sources include inflows into the mine, drawdown and changes to stream baseflow. Trigger action response measures will be adopted to manage the impacts of the project on groundwater within acceptable limits. The mine inflow rates are predicted to average approximately 5ML of groundwater per day during the early life of the project. Mine inflows and pumping are anticipated to cause a decline in aquifer storage of around 9ML per day, or 3.0GL per annum, and a consequent decline in groundwater levels. Baseflow loss is anticipated to occur in Dogtrap Creek, Carters Creek and Mermaid Pool.
Greater Metropolitan Region Groundwater Sources 2011- Sydney Basin Nepean – Nepean Management Zone 2	Potential impacts from mining induced subsidence as a result of the proposed development on surface water resources include: - impacts to the flow rate or the quantity of flow, which can occur as a result of flow diversion or loss; - changes to the hydraulic characteristics and associated impacts to the physical stability of the watercourses, which can occur as a result of shear stress and changes to the stream bed; and - impacts to the water quality characteristics of watercourses, which can occur as result of changes to or increasing in scour, mine discharge and/or gas release. Subsidence predictions identified that watercourses that lie directly over the longwalls are exposed to a greater range of subsidence impacts than those that do not directly overlie the longwalls. However, based on the subsidence predictions for the project, it is considered that while localised changes, diversions and ponding to surface water may occur, they would be minor. Management measures would include further monitoring during mining, remediation measures and post-mining monitoring programs.

2.9.2 Do you consider this impact to be significant?

Yes

2.10 Is the proposed action a nuclear action?

No

2.11 Is the proposed action to be taken by the Commonwealth agency?

No

2.12 Is the proposed action to be undertaken in a Commonwealth Heritage Place Overseas?

No

2.13 Is the proposed action likely to have ANY direct or indirect impact on a water resource related to coal/gas/mining?

No

Section 3 - Description of the project area

Provide a description of the project area and the affected area, including information about the following features (where relevant to the project area and/or affected area, and to the extent not otherwise addressed in Section 2).

3.1 Describe the flora and fauna relevant to the project area.

Flora

A search of the EPBC Act Protected Matters Search Tool identified 36 flora species listed as previously being recorded, or having potential habitat within a 10km radius of the Proposed Action area. These flora species are outlined in Attachment 1 Likelihood of Occurrence Table (Niche Environment and heritage, 2017). Assessments of significance for those species with the potential to occur in the proposed action area are included in Attachment 2 (Niche Environment and heritage, 2017) uploaded under section 2.4.

Fauna

A search of the EPBC Act Protected Matters Search Tool identified 43 species listed under the EPBC Act as previously being recorded, or having potential habitat within a 10km radius of the Proposed Action area. These fauna species are outlined in Attachment 1 Likelihood of Occurrence Table (Niche Environment and Heritage, 2017). Assessments of significance for those species with the potential to occur in the proposed action area are included in Attachment 2 (Niche Environment and heritage, 2017) uploaded under section 2.4.

Species, populations and communities listed by the EPBC Act Protected Matters Report have been investigated for their habitat requirements and a summary of the likelihood of occurrence within the Proposed Action area are provided in Attachment 1 Likelihood of Occurrence Table (Niche Environment and Heritage, 2017) uploaded under section 2.4

Listed threatened species and communities in MNES that could be significantly impacted by the Proposed Action have been identified within the Proposed Action Area as follows:

Listed threatened ecological community – SSTF listed as EEC under the EPBC Act. Approximately 41 hectares of this EEC will be cleared in the Proposed Action Area for the

establishment of the REA, vent shafts and SIS pre-gas drainage.

Listed Threatened Species:

Persoonia bargoensis individuals listed as Vulnerable under the EPBC Act. Removal of an estimated 96 individuals (from an identified population of approximately 648 individual plants) is proposed as part of the Proposed Action from within the proposed REA, mine ventilation sites and SIS pre-gas drainage sites.

The proposed action will also result in the removal of an estimated 1860 individuals of Grevillea parviflora subsp. parviflora from the footprint of the REA (1848 individuals) and the ventilation shaft TS1 (12 plants). However, the REA population extends to the east of Charlies Point Road and is likely to include an additional 9,240 plants based on 20 hectares of habitat. Approximately 40 Pomaderris brunnea individuals will also be removed along Teatree Hollow Creek for the proposed haul road. This equates to approximately 3.2 per cent of the population (assuming 1235 plants in the local population). Assessments of significance conducted by Niche (2017) for these two species concluded that the impact on these species will not be significant.

3.2 Describe the hydrology relevant to the project area (including water flows).

Surface Water

The Proposed Action Area is located in the Bargo River sub catchment. From its headwaters near the townships of Hill Top and Yerrinbool, the Bargo River flows in a generally north-easterly direction to its confluence with the Nepean River, near the Pheasants Nest Weir. The Bargo River consists of a sequence of pools, glides and rock bars across sandstone bedrock, with occasional boulder fields and cobblestone riffles. The Bargo River drains a total catchment of approximately 13,000 ha at its confluence with the Nepean River.

The Bargo River has ephemeral flows in its upper reaches, which are regulated by the Picton Weir, located approximately 14 km upstream of the Nepean River confluence. Downstream of the Tea Tree Hollow confluence with the Bargo River, the flow within the Bargo River is perennial due to constant flow within Tea Tree Hollow derived from the licenced discharge from the Tahmoor Mine. The Bargo River flows into the Nepean River 9 km downstream of the Tea Tree Creek confluence.

The Nepean River rises in the Great Dividing Range to the west of the Proposed Action Area. Flows in the upper reaches of the Nepean River are highly regulated by the Upper Nepean Water Supply Scheme, which is operated by the Sydney Catchment Authority. This scheme incorporates four major water supply dams on the Cataract, Cordeaux, Avon and Nepean

Rivers. The Nepean Dam is situated approximately 18 km upstream of the Bargo River confluence.

The Nepean River has been extensively modified by the construction of a series of in-stream weirs which have created a series of pondages, with the nearest to the Proposed Action Area being the Maldon Weir.

The central part of the Proposed Action Area is predominantly drained by Tea Tree Hollow and Dog Trap Creek, which generally flow north and eastward toward the Bargo River. A small area on the south-west of the central part is drained by headwater tributaries of Hornes Creek which flows into the Bargo River at Picton Weir. Licensed discharges of water from the Tahmoor Mine enter Tea Tree Hollow via the EPL1389 Licensed Discharge Point No. 1 (**LDP 1**).

The eastern part of the Proposed Action Area is predominantly drained by Eliza Creek, which flows northward to the Nepean River. A small part of the eastern area is also drained by Carters Creek which flows north-east to the Nepean River.

Groundwater

The Proposed Action Area is located within the Sydney Basin sedimentary rock groundwater system.

The recognised aquifers/water bearing zones within the area are the:

Alluvium/sediment aquifers;Wianamatta Group minor aquifers and aquitards;Hawkesbury Sandstone aquifers;Narrabeen Group sandstone aquifers; andIllawarra Coal Measures water bearing seams.

3.3 Describe the soil and vegetation characteristics relevant to the project area.

Soils

The soil landscape units within the Proposed Action Area have been mapped by the former NSW Department

of Land and Water Conservation, incorporating the NSW Soil Conservation Service (now part of NSW Department of Primary Industries (DPI)), on the Wollongong – Port Hacking 1:100,000 Sheet. Seven soil landscape units are found within the Proposed Action Area.

Blacktown

The Blacktown soil landscape unit covers gently undulating rises, broad rounded crests and ridges, with slopes less than 5%, but occasionally up to 10% and local relief is up to 30 m. It occurs on the Wianamatta Group geological unit, which is predominately comprised of shale. The dominant soils are shallow to moderately deep Red and Brown Podzolics on crest, upper slopes and well drained areas; and deep Yellow Podzolic Soils and Soloths on lower slopes and in drainage depressions. Limitations to the soil landscape unit are moderately reactive soil, low soil fertility and seasonal waterlogging.

This soil landscape unit is predominately Rural Land Capability Class III and IV, which indicates the land is suitable for cropping (requiring intensive management practices) and grazing. Much of the Blacktown soil landscape unit has been urbanised or under rural residential development.

Gymea

The Gymea soil landscape unit covers undulating to rolling rises and low hills, with slopes between 10- 25% and local relief in 10-80 m. It occurs on the Hawkesbury Sandstone geological unit consisting of sandstone and some shale and laminite. The dominant soils are shallow to moderately deep Yellow Earths and Earthy Sands on crests and inside benches; Gleyed and Yellow Podzolic Soils on shale lenses; and shallow to moderately deep Siliceous Sands and Leached Sands along drainage lines. Limitations to the soil landscape unit are localised steep slopes, high soil erosion hazard, rock outcrop and very low soil fertility.

The soil landscape unit is predominately Rural Land Capability Class VIII, indicating the land is not suitable for any agricultural enterprises.

Hawkesbury

The Hawkesbury soil landscape unit covers rugged, rolling to very steep hills, with slopes greater than 25% and local relief 100-200 m. It occurs on the Hawkesbury Sandstone geological unit consisting of sandstone and some shale and laminite. The dominant soils are shallow Lithosols and Siliceous Sands associated with rock outcrops; Earthy Sands and Yellow Earths along joints and fractures; Yellow and Red Podzolic Soils on shale lenses; and Siliceous Sands on valley flats. Limitations of the soil landscape unit are extreme erosion hazard, mass movement, steep slopes, rock outcrop and low soil fertility.

This soil landscape unit is entirely Rural Land Capability Class VIII, indicating the land is not suitable for any agricultural enterprises.

Lucas Heights

The Lucas Heights soil landscape unit covers gently undulating crests, ridges and plateau surfaces, with slopes less than 10% and local relief is 10-50 m. It occurs on the Mittagong Formation geological unit consisting of shale, laminite and quartz sandstone. The dominant soils are moderately deep Yellow Podzolic Soils and Yellow Soloths on ridges and plateaus. Lateritic Podzolics are also present on crests, Yellow Earths on Shoulders of plateaus and ridges. Earthy sands occur in valley flats. Limitations to this soil landscape unit are stoniness, low soil fertility and localised surface movement potential.

This soil landscape unit is predominately Rural Land Capability Class IV, with some minor area of Class III, indicating the land is suited to grazing enterprises.

Luddenham

The Luddenham soil landscape unit covers undulating to rolling low hills, with slopes 5-20% and local relief is 50-80 m. The dominant soils are shallow Brown Podzolic Soils and massive Earthy Clays on crests; moderately deep Red Podzolic Soils on upper slopes; and moderately deep Yellow Podzolic Soils and Prairie Soils on lower slopes. Limitations to this soil landscape unit are erosion hazard, mass movement and moderate surface swelling potential.

This soil landscape unit is predominately Rural Land Capability Class IV, indicating the land is suited to grazing enterprises.

Volcanic

The Volcanic soil landscape unit covers gently inclined valley floors surrounded by steep sideslopes, with slopes ranging from 5-60% and local relief up to 80 m. It occurs on Jurassic volcanic breccia. The dominant soils are deep Red and Yellow Podzolic Soils. Limitations to this soil landscape unit are localised erosion hazard, including mass movement on steep slopes.

Vegetation

Vegetation within the Proposed Action area includes the Cumberland Shale Sandstone Transition Forest which is listed as an EEC under the TSC Act and Endangered Community under the EPBC Act, and also the Southern Highlands Shale Woodland which is listed as an EEC under the NSW TSC Act.

Other vegetation communities mapped within the Proposed Action area include:

Coastal Sandstone Ridgetop WoodlandHinterland Sandstone Gully ForestLower Blue Mountains Wet ForestSandstone Riparian ScrubSydney Hinterland Transition WoodlandWingecarribee-Burragorang Sandstone Forest

3.4 Describe any outstanding natural features and/or any other important or unique values relevant to the project area.

Mermaids Pool, located on the Bargo River and Thirlmere Lakes National Park are significant natural features in the locality. Wirrimbirra Sanctuary, a flora and fauna education and research centre, is located close to the Tahmoor Mine surface facilities.

3.5 Describe the status of native vegetation relevant to the project area.

Native Remnant Vegetation

Vegetation within the Proposed Action Area includes the SSTF which is listed as an EEC under the EPBC Act. Other vegetation communities mapped within the Proposed Action area include:

Southern Highlands Shale WoodlandCoastal Sandstone Ridgetop WoodlandHinterland Sandstone Gully ForestLower Blue Mountains Wet ForestSandstone Riparian ScrubSydney Hinterland Transition WoodlandWingecarribee-Burragorang Sandstone Forest

3.6 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

Topography in the region is varied, ranging from gently undulating plateaux, ridges and low hills in the upland areas, to a rugged landscape of deeply dissected valleys and gorges within the Hawkesbury Sandstone.

Topography within the Proposed Action Area is generally undulating with a fall from the south-west to the north-east. The major topographical features are the Bargo and Nepean River valleys. Surface levels within the Proposed Action Area vary from a low point of approximately 105 m Australian Height Datum (AHD), in the base of the Nepean River valley, to a high point of approximately 375 m AHD, at the southern end of the Proposed Action area.

3.7 Describe the current condition of the environment relevant to the project area.

The Proposed Action Area consists of a mix of urban and rural land uses and natural bushland.

The urban land consists of residential housing in the Bargo village and rural residential development in the village fringe areas.

The rural land is used for a mix of both intensive agricultural production, such as poultry raising and cut flower production, and low intensive agricultural uses, such as cattle grazing.

The rural land has generally a good pasture cover development and minor erosion areas are evident.

The natural bushland generally follows the drainage lines in the steeper sandstone areas but a large area of natural vegetation within Crown land occurs.

The natural bushland condition ranges from poor in the more accessible areas, where unauthorised access and use by trail bikes and other uses has resulted in extensive development of exotic weed infestation to good condition in the less accessible areas.

A large part of the Crown land was significantly damaged by the November 2013 bushfires.

3.8 Describe any Commonwealth Heritage Places or other places recognised as having heritage values relevant to the project area.

There are no listed Commonwealth Heritage Places within the Proposed Action area.

3.9 Describe any Indigenous heritage values relevant to the project area.

A total of 43 Aboriginal sites are known to exist within the Proposed Action Area and consist of open camp sites (7), rock shelters with art sites (31), axe grinding groove sites (4) and scarred tree site (1) types. The rock shelters with art are predominately located within Dog Trap Creek. The mine plan was modified by shortening one longwall within the Central Mining Domain to

avoid undermining two rock shelters with art sites on Dog Trap Creek that were assessed as being highly significant. The mine plan was modified to minimise potential damage to these sites from subsidence or geotechnical instability. The remaining rock shelter sites along Dog Trap Creek and within the Proposed Action Area are proposed to be undermined, and have been assessed as being of low significance and low risk of damage from subsidence and geotechnical instability.

Within the Proposed Action Area, a total of 37 sites were previously registered (AHIMS database) and 6 new sites have been identified as a result of the Aboriginal heritage surveys and visual inspections undertaken during 2013 for the Aboriginal Cultural Heritage Assessment (ACHA) for the Tahmoor South Project EIS.

3.10 Describe the tenure of the action area (e.g. freehold, leasehold) relevant to the project area.

The Proposed Action will be on land held by Tahmoor Coal under the following tenure:

Freehold Title, such as part of the REA and vent shaft sites;Mining Leases, such as CCL747, CCL716 and ML1642, which include both surface and subsurface tenure;Additional surface tenure proposed via an application for a new Mining Lease for part of the proposed REA expansion and vent shaft sites adjacent to the Tahmoor Coal Anthony Road property.

3.11 Describe any existing or any proposed uses relevant to the project area.

The existing land use of the Proposed Action Area consists of the following:

Bargo Village urban area and fringe areas of rural residential development consisting of small lots and hobby farms;Large lot rural residential;Wirrimbirra Sanctuary;Wollondilly Council Bargo landfill;Rural land used for intensive primary production, such as poultry raising, market gardens and cut flower growing;Rural land used for primary production, such as grazing, horse stud and greyhound training; andNative vegetation contained within Crown Land generally along drainage corridors.

Section 4 - Measures to avoid or reduce impacts

Provide a description of measures that will be implemented to avoid, reduce, manage or offset any relevant impacts of the action. Include, if appropriate, any relevant reports or technical advice relating to the feasibility and effectiveness of the proposed measures.

Examples of relevant measures to avoid or reduce impacts may include the timing of works, avoidance of important habitat, specific design measures, or adoption of specific work practices.

4.1 Describe the measures you will undertake to avoid or reduce impact from your proposed action.

Tahmoor Coal has designed the Tahmoor South Project with a focus on minimising environmental impacts and preserving safety of mining and ancillary operations. The philosophy followed is to initially avoid all potentially negative impacts.

Where it is impracticable or not feasible to avoid impacts the focus shifts to minimising the impact through implementation of mitigation measures. This philosophy has been adopted in the design of all elements of the Proposed Action.

Baseline Monitoring:

Tahmoor Coal undertook a program of baseline monitoring to inform the environmental impact assessment and technical studies, with multiple years of monitoring data used. Additionally, the technical environmental studies completed were also able to utilise the environmental monitoring data collected by the existing Tahmoor Mine, which is some instances was for a period in excess of 10 years.

Mine Plan:

Tahmoor Coal used safety as the first criteria when designing the Tahmoor South Project mine plan. Other criteria considered include the potential social and environmental impacts of the proposed mining as well as potential mining-related impacts on sensitive surface features, both natural and man-made.

Factors that are considered in developing a safe mine plan include:

competency of the roof strata overlying the coal seam;

structural complexity of the coal seam and overburden geology; and

tectonic stress environment- a function of the depth of the coal seam below the surface and the local stress regime.

The mine plan has been developed to minimise mining-related subsidence impacts to both natural features and man-made infrastructure in accordance with current best practice. The southern extent of the eastern longwall panels was also reduced to avoid the potential for subsidence related impacts on Cow Creek, and also avoids the subsequent potential for impacts to the Giant Burrowing Frog.

Surface Infrastructure:

The method of control for the proposed new surface infrastructure is to avoid any new disturbance as far as practicable. The majority of the additional infrastructure will be constructed within the current pit top disturbed area, in the vicinity of the rail loop and the CHPP areas which are already disturbed.

Some proposed new surface infrastructure will not be able to be located within already disturbed areas. In these cases minimisation and mitigation of any potential environmental impacts on the uncleared areas will be the main controls. This will apply to three of the proposed vent shafts, and some SIS holes.

Measures that will be used to mitigate the impacts of any vegetation clearing required will be:

avoidance of significant ecological areas and application of appropriate protection zones

minimal vegetation clearing (without compromising safety), under supervision of an ecologist or an environmental representative

management of disturbed areas:

topsoil will be stripped using best practice methods and will be stockpiled for use in future rehabilitation

sediment and erosion controls will be implemented

weed control actions will be undertaken

progressive rehabilitation.

Reject Emplacement Area:

Measures to avoid and reduce potential impact due to the establishment of the REA will be taken into consideration during the detailed design of the REA.

Management of both coarse and fine reject materials via emplacement into a surface REA using co-disposal methods will preclude the need for additional tailings/fines dams and associated vegetation clearing.

Offsets:

Where potential direct impacts on MNES cannot be avoided or mitigated; compensatory offsets will be proposed.

Offsets are being investigated as part of the preparation of the EIS. The EIS will detail the quantum of offsets required (if any) and potential location(s) of the required offsets for the Tahmoor South Project.

An Offsets Strategy for the Tahmoor South Project will be developed in accordance with the EPBC Act Environment Offsets Policy, OEH's Principles for the use of biodiversity offsets in NSW and the Biodiversity Conservation Act 2016 (NSW). The strategy will be developed in consultation with Commonwealth Department of Environment and NSW OEH and DP&E and will provide measures to maintain and improve biodiversity values of the required offsets.

4.2 For matters protected by the EPBC Act that may be affected by the proposed action, describe the proposed environmental outcomes to be achieved.

Where potential direct impacts on MNES cannot be avoided or mitigated; compensatory offsets will be proposed. Offsets are being investigated during the preparation of the EIS. These will detail the quantum and potential location(s) of the required offsets for the Tahmoor South Project. The Offset Strategy will aim to develop an offset that satisfies both NSW and Commonwealth requirements.

The package will:

Meet OEH's Principles for the use of biodiversity offsets in NSW;

Identify the conservation mechanisms to be used to ensure the long term protection and management of the offset sites;

Include an appropriate management plan (such as vegetation or habitat) that has been developed as a key amelioration measure to ensure any proposed compensatory offsets,

retained habitat enhancement features within the development footprint and/or impact mitigation measures (including proposed rehabilitation and/or monitoring programs) are appropriately managed and funded.

The Offset Strategy will satisfy the EPBC Act guidelines by:

delivering an overall conservation outcome that improves or maintains the viability of the aspect of the environment that is protected by national environment law and affected by the proposed development;being efficient, effective, transparent, proportionate, scientifically robust and reasonable;being built around direct offsets but may include indirect offsets such as improving a species habitat (weeding for e.g.) or contributing to research into the species' recovery;being of a size and scale proportionate to the impacts being offset;being in proportion to the level of statutory protection that applies to the affected species or community;effectively managing the risks of the offset not succeeding; andhaving transparent governance arrangements including being able to be readily measured, monitored, audited and enforced.

Section 5 – Conclusion on the likelihood of significant impacts

A checkbox tick identifies each of the matters of National Environmental Significance you identified in section 2 of this application as likely to be a significant impact.

Review the matters you have identified below. If a matter ticked below has been incorrectly identified you will need to return to Section 2 to edit.

5.1.1 World Heritage Properties

No

5.1.2 National Heritage Places

No

5.1.3 Wetlands of International Importance (declared Ramsar Wetlands)

No

5.1.4 Listed threatened species or any threatened ecological community

Listed threatened species and communities - Yes

5.1.5 Listed migratory species

No

5.1.6 Commonwealth marine environment

No

5.1.7 Protection of the environment from actions involving Commonwealth land

No

5.1.8 Great Barrier Reef Marine Park

No

5.1.9 A water resource, in relation to coal/gas/mining

A water resource, in relation to coal seam gas development and large coal mining development - Yes

5.1.10 Protection of the environment from nuclear actions

No

5.1.11 Protection of the environment from Commonwealth actions

No

5.1.12 Commonwealth Heritage places overseas

No

5.2 If no significant matters are identified, provide the key reasons why you think the proposed action is not likely to have a significant impact on a matter protected under the EPBC Act and therefore not a controlled action.

N/A

Section 6 – Environmental record of the person proposing to take the action

Provide details of any proceedings under Commonwealth, State or Territory law against the person proposing to take the action that pertain to the protection of the environment or the conservation and sustainable use of natural resources.

6.1 Does the person taking the action have a satisfactory record of responsible environmental management? Please explain in further detail.

Tahmoor Mine operates under a comprehensive Environmental Management System (EMS) and seeks to provide accurate information to all stakeholders including the surrounding community. This is demonstrated through the Annual Environmental Management Reports and independent audits available on the Tahmoor Mine website (www.tahmoormine.com.au).

The EMS provides a framework for dealing with environmental management issues at the Tahmoor Mine in a systematic way. Within the framework of the EMS are comprehensive standards, procedures, objectives and targets which help Tahmoor Coal maintain and continually improve environmental performance. Routine inspections and regular environmental audits are undertaken to assess performance against the objectives and targets to identify opportunities for improvement.

Tahmoor Coal has implemented a range of measures across the Tahmoor Mine to improve ecological outcomes including:

Native vegetation enhancement;

Progressive rehabilitation of overburden emplacement areas;

Monitoring of rehabilitation; and

Management of site disturbance activities.

6.2 Provide details of any past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either (a) the person proposing to take the action or, (b) if a permit has been applied for in relation to the action – the person making the application.

Not applicable

6.3 If it is a corporation undertaking the action will the action be taken in accordance with the corporation's environmental policy and framework?

Yes

6.3.1 If the person taking the action is a corporation, please provide details of the corporation's environmental policy and planning framework.

Refer to the Tahmoor Mine Environmental Management System and Framework Document, uploaded in Section 6.3.2.

6.4 Has the person taking the action previously referred an action under the EPBC Act, or been responsible for undertaking an action referred under the EPBC Act?

Yes

6.4.1 EPBC Act No and/or Name of Proposal.

(EPBC 2011/5794) Construction of a new rail track deviation of the Main Southern Railway at Tahmoor, NSW. The referral decision was that proposed action was not a controlled action.

(EPBC 2014/7162) To extend underground longwall mining at the Tahmoor Mine, with associated surface infrastructure works, approximately 80km south of Sydney. The proposal was determined a controlled action however the proposal was withdrawn 16 November 2015.

Section 7 – Information sources

You are required to provide the references used in preparing the referral including the reliability of the source.

7.1 List references used in preparing the referral (please provide the reference source reliability and any uncertainties of source).

Reference Source	Reliability	Uncertainties
Tahmoor South Project, Terrestrial Ecology Assessment. Niche Environment and Heritage Pty Ltd. January 2014 [currently being updated]	The report was prepared by professional technical specialist consultants using recognised and published technical discipline guidelines and standards as outlined within their reports. Therefore the information contained within the reports is considered reliable.	The information contained within the report does not contain any uncertainties that are not outlined or qualified within the reports.
Attachment 1: Tahmoor South Project, Likelihood of Occurrence Table, Niche Environment and Heritage Pty Ltd 2017	The report was prepared by professional technical specialist consultants using recognised and published technical guidelines and standards as outlined within their reports. Therefore the information contained within the reports is considered reliable.	The information contained within the table does not contain any uncertainties that are not outlined or qualified within the reports.
Attachment 2: Tahmoor South Project, Biodiversity Assessment Report, Appendix 5 – MNES Assessments of Significance, Niche Environment and Heritage Pty Ltd 2017	The report was prepared by professional technical specialist consultants using recognised and published technical guidelines and standards as outlined within their reports. Therefore the information contained within the reports is considered reliable.	The information contained within the table does not contain any uncertainties that are not outlined or qualified within the reports.

Section 8 – Proposed alternatives

You are required to complete this section if you have any feasible alternatives to taking the proposed action (including not taking the action) that were considered but not proposed.

8.0 Provide a description of the feasible alternative?

The SEARS issued by the NSW Department of Planning and Environment for the EIS for the Tahmoor South Project require the preparation of a detailed cost benefit analysis that takes into consideration the alternatives and environmental, social and economic costs and benefits for the Tahmoor South Project. This assessment will include identification of environmental costs and the extent to which the existing mine and its direct and indirect workforce contributes to the local and regional economy.

The following alternatives to taking the Proposed Action were investigated during the design phases of the Proposed Action:

Alternative REA locations

Alternative reject disposal method; and

Do nothing.

Further details of these options are outlined below:

Alternative REA Locations

A development consent for the Bargo Mine was granted in 1975 and this approval was physically commenced with the sinking of the Bargo shaft. The Bargo Mine development consent covers part of the Tahmoor South Area. The Bargo Mine development consent includes approval for a large REA to be constructed within several stream valleys of small tributaries of the Bargo River.

The use of the Bargo Mine approved REA was reviewed for the Tahmoor South Project. This review considered the following issues:

Economic constraints associated with the overland route to the Bargo REA and transportation costs;Social and environmental issues from transportation of reject to the Bargo REA, such as

land access and visual amenity; andEnvironmental issues such as large land clearing footprint required (in excess of 300 hectares) and water quality issues with filling within a stream tributary of the Bargo River.

The Tahmoor South Project, in consultation with DP&E, propose that the 1975 Bargo consent be surrendered under the relevant provisions of the EP&A Act, following granting of development consent for the Tahmoor South Project. It is likely that this will be a condition of the development consent for the Tahmoor South Project.

Other potential locations for the siting of a REA for the Tahmoor South Project were investigated within the Bargo and Pheasants Nest region.

These potential REA locations were rejected during the early stages of planning for the Tahmoor South Project for reasons similar to the rejection of the Bargo REA location, due to environmental, social and economic factors, such as cost of reject transport to remote sites, vegetation clearing required, water quality and sedimentation issues, availability and access to alternative sites and capital expenditure required for purchase of the alternative sites. Potential community concerns associated with reject transport relating to truck movements, noise, visual and air quality impacts were also considered.

Alternative Reject Disposal Method

Options for possible underground disposal within the Tahmoor Mine of combined rejects (coarse and fine) were considered, in order to reduce the footprint of the proposed REA expansion. A potential underground disposal methodology includes processing the rejects, crushing and grinding processes with the addition of chemicals and water to form a high density slurry that can be pumped into underground mine workings. Underground rejects disposal is not considered to be a feasible option for reject disposal due to the following issues:

Technical and operational mining issues and requirements, such as:

Mine safety considerations;Mining productivity system constraints;

Underground disposal capacity limitations;

System availability; and

Range of pumping distances involved;

Environmental impacts including:

Energy required for crushing plant and slurry pumping;

Noise impacts;Dust impacts; and

Water contamination impacts;

Increased water consumption for the slurry formation;

Prohibitive economic cost compared to the option of emplacing the rejects on the surface.

Do Nothing.

The alternative of not proceeding with the Proposed Action would result in the loss of employment of the 360 current employees of Tahmoor Mine by the end 2022. Additionally, numerous local suppliers and contractors servicing the Tahmoor Mine would lose business if Tahmoor Mine was to close in 2022.

It would also result in the lost potential to mine 60 Mt of accessible coal reserves and the loss of approximately $700 million capital and ongoing operational expenditure. In order to continue the current mining operations and ensure the continued employment of the existing and proposed workforce, the ‘Do Nothing’ option is not desirable.

8.1 Select the relevant alternatives related to your proposed action.

8.27 Do you have another alternative?

No

Section 9 – Contacts, signatures and declarations

Where applicable, you must provide the contact details of each of the following entities: Person Proposing the Action; Proposed Designated Proponent and; Person Preparing the Referral. You will also be required to provide signed declarations from each of the identified entities.

9.0 Is the person proposing to take the action an Organisation or an Individual?

Organisation

9.2 Organisation

9.2.1 Job Title

Project Manager

9.2.2 First Name

Ben

9.2.3 Last Name

Streckeisen

9.2.4 E-mail

ben.streckeisen@glencore.com.au

9.2.5 Postal Address

Private Mail Bag 8
Singleton NSW 2330
Australia

9.2.6 ABN/ACN

ABN

97076663968 - TAHMOOR COAL PTY LTD

9.2.7 Organisation Telephone

(02) 4640 0100

9.2.8 Organisation E-mail

ben.streckeisen@glencore.com.au

9.2.9 I qualify for exemption from fees under section 520(4C)(e)(v) of the EPBC Act because I am:

Not applicable

Small Business Declaration

I have read the Department of the Environment and Energy's guidance in the online form concerning the definition of a small a business entity and confirm that I qualify for a small business exemption.

NOT APPLICABLE

Signature:..... Date: .....

9.2.9.2 I would like to apply for a waiver of full or partial fees under Schedule 1, 5.21A of the EPBC Regulations

No

9.2.9.3 Under sub regulation 5.21A(5), you must include information about the applicant (if not you) the grounds on which the waiver is sought and the reasons why it should be made

Person proposing the action - Declaration

I, BEN STRECKEISEN, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf of or for the benefit of any other person or entity.

Signature:..... Date: 20/10/2017

I, BEN STRECKEISEN, the person proposing the action, consent to the designation of TAHMOOR COAL PTY LTD as the proponent of the purposes of the action describe in this EPBC Act Referral.

Signature:..... Date: 20/10/2017

9.3 Is the Proposed Designated Proponent an Organisation or Individual?

Australian Government
Department of the Environment and Energy

Organisation

9.5 Organisation

9.5.1 Job Title

Project Manager

9.5.2 First Name

Ben

9.5.3 Last Name

Streckeisen

9.5.4 E-mail

ben.streckeisen@glencore.com.au

9.5.5 Postal Address

Private Mail Bag 8
Singleton NSW NSW 2330
Australia

9.5.6 ABN/ACN

ABN

97076663968 - TAHMOOR COAL PTY LTD

9.5.7 Organisation Telephone

(02) 4640 0100

9.5.8 Organisation E-mail

ben.streckeisen@glencore.com.au

Proposed designated proponent - Declaration

I, BEN STRECKEISEN on behalf of TAHMOOR COAL PTY LTD, the proposed designated proponent, consent to the designation of myself as the proponent for the purposes of the action described in this EPBC Act Referral.

Australian Government
Department of the Environment and Energy

Signature: ..... Date: 20/10/2017

9.6 Is the Referring Party an Organisation or Individual?

Individual

9.7 Individual

9.7.1 Job Title

Project Manager

9.7.2 First Name

Ben

9.7.3 Last Name

Streckeisen

9.7.4 E-mail

ben.streckeisen@glencore.com.au

Referring Party - Declaration

I, BEN STRECKEISEN, I declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence.

Signature: ..... Date: 20/10/2017

Appendix A - Attachments

The following attachments have been supplied with this EPBC Act Referral:

1. tahmoor_mine_environmental_management_system_framework.pdf
2. tsp_epbc_-_consultation_summary.pdf
3. tsp_epbc_attachment_1_likelihood_of_occurrence_table_for_referral.pdf
4. tsp_epbc_attachment_2_assessments_of_significance.pdf
5. tsp_epbc_figures_reduced.pdf