



5 December 2018

Mr Matt Floro
Solicitor
EDO NSW
Level 5, 263 Clarence Street
Sydney NSW 2000

Dear Matt

**Re: United Wambo Open Cut Coal Mine Project (Project) – Independent Planning
Commission Public Meeting**

Thank you for your request for expert advice on the above matter.

As per your supplied brief, I have been engaged by the Environmental Defenders Office (EDO NSW) on behalf of the Hunter Environment Lobby to provide advice to the Independent Planning Commission (IPC) concerning the United Wambo Open Cut Coal Mine Project, situated in the Hunter Valley of New South Wales. I have previously reviewed documents relating to this project (Bell 2016), and I have now been asked to consider whether the most recent documents prepared by the applicant have adequately addressed my earlier concerns.

The brief supplied to me has requested a review of updated documents (via supplied web links; see below), a written report on my assessment, and to appear as an expert witness at the IPC Public Meeting to be held in Singleton on 12 December 2018. Due to time constraints, I am only able to provide this letter *in lieu* of an expert report, following review of the requested documents, and am unavailable to participate in the IPC Public Meeting to give oral evidence.

Document links provided to me for review related to:

- IPC Review
- Response to IPC Review
- Agency Comments on Response to IPC Review
- Response to Request for Additional Information
- DPE Final Assessment Report

Instructions to me were as follows:

*a) Have the concerns raised by you (if any) in your previous assessment been adequately addressed?
The questions asked in your original brief dated 21 September 2016 were:*

- i. *In your opinion, was the assessment undertaken in the EIS for Hunter Valley Weeping Myall Woodland adequate?*
- ii. *In your opinion, will the proposed mine rehabilitation offsets achieve the environmental outcomes stated in the EIS?*

b) Provide any further observations or opinions that you consider to be relevant, having regard to the circumstances of this matter.

Professional Experience

I am a well-respected and experienced consultant botanist and vegetation scientist with Eastcoast Flora Survey (22 years), and am also a Conjoint Fellow at the University of Newcastle (4 years), in the School of Environmental and Life Sciences. Additionally, I currently sit on the NSW Threatened Species Scientific Committee, and am a member of the Office of Environment and Heritage (OEH) Species Technical Group overseeing changes to threatened species management under the NSW Governments Saving Our Species program. I have worked professionally in the Hunter Valley for over 26 years, and have published more than 30 scientific papers and articles on the vegetation of this region (see Curriculum Vitae, attached).

Expert Code of Conduct

I have been provided with a copy of Division 2 of Part 31 of the *Uniform Civil Procedure Rules 2005*, and a copy of the Expert Witness Code of Conduct contained in Schedule 7 of these Rules, which I have read and agree to be bound by.

The following paragraphs summarise my response to the questions asked of me.

1. Hunter Valley Weeping Myall Woodland

In my 2016 report, I detailed how identification of Hunter Valley Weeping Myall Woodland (HVWMW) within the proposed project area potentially failed to meet the implied detection methods outlined in a publication prepared by Tozer and Chalmers (2016) [current and past members of the NSW Threatened Species Scientific Committee]. These authors stipulate that rather than using the presence of Weeping Myall (*Acacia pendula*) as the only indicator of HVWMW, a detailed assessment of all floristic composition should be made. Additionally, they claim that “*all samples [of vegetation] located in the relatively restricted areas of the Hunter valley that experience the most extreme drought conditions (Figure 1c) are candidates for reassessment as a sample of Hunter Weeping Myall Woodland*”. The proposed project area lies within the area of Figure 1c shown in Tozer and Chalmers (2016), and therefore constitutes potential habitat for HVWMW. In my review of the most recent documents concerning this proposal, I cannot see any indication that a revised assessment of HVWMW has been done in keeping with the sentiments of Tozer and Chalmers (2016). Consequently, I stand by my earlier comments that HVWMW is yet to be fully assessed across the proposed project area.

2. Mine Rehabilitation Offsets

My earlier concerns over the ability to recreate threatened ecological communities as part of mining rehabilitation remain unchanged. Since my earlier assessment, Umwelt (2017) have prepared a document on behalf of the NSW Minerals Council entitled “*Assessment of Mine Rehabilitation Against Central Hunter Valley Eucalypt Forest and Woodland Critically Endangered Ecological Community*”. While I have not had access to or read this document, there is sufficient information contained in the response to it from OEH to satisfy me that it does not comprehensively show that

recreating threatened ecosystems on mine rehabilitation is possible. Conversely, there are several scientific papers in the peer-reviewed literature that clearly show how successfully recreating natural ecosystems on former mined lands is improbable (e.g. Doley & Audit 2013; Erskine & Fletcher 2013; Lamb et. al. 2015; Ngugi & Neldner 2015; Ngugi et. al. 2015; McDonald et al 2016; Chen et. al. 2018). I therefore do not believe that the proposed mine rehabilitation objectives or expected environmental outcomes will be achieved, or that satisfactory re-establishment of cleared threatened ecosystems on mined lands will occur. Novel ecosystems (Doley & Audit 2013; Erskine & Fletcher 2013) will be established in their place, which are unlikely to provide an adequate offset for cleared threatened communities.

3. Additional Observations

I have no further observations or opinions relevant to this matter.

References

- Bell, S.A.J. (2016) *Review of Biodiversity Issues: United Wambo Open Cut Coal Mine Project*. Final Report to EDO NSW, September 2016.
- Chen HYH, Biswas SR, Sobey TM, Brassard BW, Bartels SF. (2018) Reclamation strategies for mined forest soils and overstorey drive understorey vegetation. *Journal of Applied Ecology* 55: 926–936
- Doley, D. & Audit, P. (2013) Adopting novel ecosystems as suitable rehabilitation alternatives for former mine sites. *Ecological Processes* 2: 22-33.
- Erskine, P.D. & Fletcher, A.T. (2013) Novel ecosystems created by coal mines in central Queensland's Bowen Basin. *Ecological Processes* 2:33-45.
- Lamb, D., Erskine, P.D., & Fletcher, A. (2015) Widening gap between expectations and practice in Australian minesite rehabilitation. *Ecological Management & Restoration* 16(3): 186-195.
- McDonald, T., Jonson, J. & Dixon, K.W. (2016) National standards for the practice of ecological restoration in Australia. *Restoration Ecology* 24: S4–S32. doi: 10.1111/rec.12359
- Ngugi, M.R. & Neldner, V.J. (2015) Two-tiered methodology for the assessment and projection of mine vegetation rehabilitation against mine closure restoration goal. *Ecological Management & Restoration* 16: 215–223.
- Ngugi, M.R., Neldner, V.J., Doley, D., Kusy, B., Moore, D. & Richter, C. (2015) Soil moisture dynamics and restoration of self-sustaining native vegetation ecosystem on an open-cut coal mine. *Restoration Ecology* 23: 615–624.
- Tozer, M. & Chalmers, A. (2016) Hunter Valley Weeping Myall Woodland in the Sydney Basin Bioregion should remain listed as a Threatened Ecological Community until strong evidence emerges in support of delisting. *Cunninghamia* 16: 31-34.



Principal

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https://www.researchgate.net/profile/Stephen_Bell10

PRÉCIS

Stephen has been involved in native vegetation survey, classification and mapping in the Greater Sydney and Hunter Regions since 1990. During this time, he has undertaken comprehensive surveys for the National Parks and Wildlife Service in over 30 conservation reserves, and has been contracted to the NSW Office of Environment & Heritage as Senior Botanist and Team Leader for several large scale regional projects within the Sydney Basin bioregion. Under contract to local Councils, Stephen has co-ordinated and completed LGA-wide vegetation classification and mapping projects for Wyong, Gosford, Cessnock, Pittwater and Lake Macquarie LGAs, and has assisted in similar mapping projects for Blue Mountains LGA. Stephen has also completed several studies on Threatened Ecological Communities and threatened plant species, and published the results of some of these in the scientific literature.

On behalf of the Ecological Society of Australia, Stephen was the ecological expert on the Hunter Regional Vegetation Committee (2003), and from 2017 represents that organization on the NSW Threatened Species Scientific Committee (administering the *Biodiversity Conservation Act 2016*). Stephen was also a past member of the Hunter Threatened Flora Recovery Team, a founding member of the Hunter Rare Plants Committee (a sub-committee of the Hunter Region Botanic Gardens), and since 2014 has been a member of the Office of Environment & Heritage Species Technical Group which oversees management and expenditure of threatened species throughout NSW via its *Saving our Species* initiative. He is also often called upon by Government for advice regarding the significance of vegetation communities and plant species within the northern Sydney Basin bioregion, and has sat on numerous expert panels in this regard. Stephen has been called upon as an Expert Witness for several cases heard in the NSW Land and Environment Court, where his knowledge on the vegetation of the Sydney Basin bioregion has been used to argue contentious land-use decisions.

Stephen has published several scientific papers on various aspects of the vegetation of the Sydney Basin, including classifications of vegetation within conservation reserves, threatened and rare plant species, and the description of new plant taxa. Stephen has completed over 4500 standard full floristic sampling plots within the Sydney Basin, which are stored and used in vegetation classification analyses. Other skills include extensive multivariate data analysis experience, and GIS mapping. Stephen's PhD thesis, completed on a part-time basis through the University of Newcastle, presented improvements in the recognition, identification and classification of restricted and significant vegetation communities, such as Threatened Ecological Communities (TECs).

In October 1996, Stephen established *Eastcoast Flora Survey*, a specialist botanical consultancy providing high quality services to government and the private sector. Since June 2014, Stephen has been a Conjoint Fellow in the School of Environmental & Life Sciences at the University of Newcastle (NSW), seeking to raise the output of ecological research on plants and vegetation within the Hunter region.

ACADEMIC QUALIFICATIONS

Doctor of Philosophy (PhD), 2013	<i>Defining and mapping rare vegetation communities: Improving techniques to assist land-use planning and conservation</i> (University of Newcastle)
Bachelor of Science (Honours), 1991	<i>Effects of the weed Scotch Broom on bird communities in open forests on Barrington Tops</i> (University of Newcastle)
Bachelor of Science, 1989	<i>Majors in Geography and Biology</i> (University of Newcastle)

EMPLOYMENT HISTORY

University of Newcastle	Conjoint Fellow (Plant Sciences Group)	June 2014 - Present
Eastcoast Flora Survey	Consultant Botanist (Principal)	Oct. 1996 - Present
Ecotone Ecological Consultants Pty Ltd	Manager - Flora Studies	Jan. 1996 - Oct. 1996
Private Ecological Consultant	Sole trader	Jan. 1991 - Dec. 1995
NSW National Parks and Wildlife Service	Project Officer	Sept. 1993 - Jan. 1994
University of Newcastle, Geography Dept.	Field Tutor (Scientific)	July 1993 - Aug. 1993
NSW National Parks and Wildlife Service	Project Officer	Jan. 1993 - June 1993
University of NSW, School of Biol. Sciences	Research Assistant (Bird ecology)	Sept. 1992 - Jan. 1993
NSW National Parks and Wildlife Service	Technical Officer (Scientific)	Jan. 1992 - June 1992
RZ Mines (Newcastle)	Environmental Research Officer	Oct. 1990 - Dec. 1991
Wayne Perry & Associates P/L	Environmental Officer (Casual)	June 1990 - Oct. 1990

RESEARCH INTERESTS

- Vegetation classification and mapping, at local and regional scales
- Definition and mapping of rare and threatened vegetation communities
- Restoration of threatened grassy woodlands from derived grasslands
- Improving data sampling methods for monitoring and classification
- Re-constructing vegetation distribution using information from historical botanical explorers
- Population ecology and habitat of rare and threatened plants
- Taxonomy and significance of Hunter Region plants

MINISTERIAL APPOINTMENTS

- Committee Member (ESA Rep.), NSW Threatened Species Scientific Committee (July 2017-present)
- Committee Member, NSW Species Technical Group, Flora (*Save Our Species Program*) (2014-present)
- Committee Member (ESA Rep.), Hunter Regional Vegetation Committee (2001-2003)

CONFERENCE & WORKSHOP PRESENTATIONS

- Best Practice Mine Rehabilitation Conference, September 2014, Singleton, NSW; The Tom Farrell Institute for the Environment, University of Newcastle: *"Effective Biodiversity Offsets: Improving planning, valuation and monitoring practice"* (with Martin Fallding).
- Plant Identification for Flora of the Hunter Valley, 7th - 8th April 2014, Kurri Kurri, Australian Network for Plant Conservation: *"Introduction to the flora of the Hunter Valley - history, diversity and ecology"*.
- HOTSPOTS Fire Project: Awabakal and Worimi Fire Forum, 27th July 2011, Williamstown, Never Never Resources: *"Vegetation of the Worimi Conservation Lands"*.

- HOTSPOTS Fire Project: Wanaruah Fire Forum, 17th – 19th August 2010, Sandy Hollow, Upper Hunter Valley, Nature Conservation Council: “*Vegetation of Wanaruah Lands, Sandy Hollow*”.
- Coastal Groundwater Dependent Ecosystems Workshop, 3rd – 4th September 2009, South West Rocks, NSW (Geoscience Australia): “*Surveying, classifying and mapping vegetation on the Tomago Sandbeds*”.
- Vegetation Management and Biodiversity Conservation in the Hunter Region, May 2000, Singleton, NSW (Hunter Environment Lobby Inc.): “*An evaluation of vegetation survey and threatened plant species listings in the Hunter Region*”

PROFESSIONAL MEMBERSHIPS

- Ecological Society of Australia (ESA)
- Australian Network for Plant Conservation Inc. (ANPC)
- International Association for Vegetation Science (IAVS)
- International Association for Vegetation Science Vegetation Classification Working Group (IAVS VSWG)
- Australasian Native Orchid Society Inc. (ANOS)
- Australasian Systematic Botany Society (ASBS)

PUBLICATION REVIEWER

- *Diversity* (MDPI, Switzerland)
- *Journal of Vegetation Science* (International Association for Vegetation Science)
- *Phytocoenologia* (International Association for Vegetation Science)
- *Telopea* (National Herbarium of New South Wales)

PUBLICATIONS (PEER REVIEWED)

- Bell, S.A.J. (in prep) Experiences in translocation of threatened terrestrial orchids in the upper Hunter Valley of New South Wales: *Diuris tricolor* and *Prasophyllum petilum* (Orchidaceae). *Ecological Management and Restoration* (in prep).
- Bell, S.A.J. & Nicolle, D. (in prep) Taxonomic clarification of an unusual, disjunct, mallee-form population of *Eucalyptus dealbata* (Myrtaceae) from the Hunter Valley of New South Wales, with comparative notes on other populations in the Sydney Basin bioregion. *Telopea* (in prep).
- Bell, S., Rockley, C., & Llewellyn, A. (in press) *Flora of the Hunter Region: Endemic Trees and Larger Shrubs*. CSIRO Publishing. 136 pp.
- DeLacey, C., Bell, S., Chamberlain, S., & Bossard, K. (in review) Prediction of and realised habitat for a cryptic plant species: the Leafless Tongue Orchid *Cryptostylis hunteriana* Nicholls. *Cunninghamia* (in review)
- Bell, S.A.J. (2018) Fate of a rare flowering event in a population of the endangered *Acacia pendula* (Weeping Myall) from the Hunter Valley of New South Wales. *Cunninghamia* 18: 79-88.
- Bell, S.A.J. & Driscoll, C. (2017) *Acacia wollarensis* (Fabaceae, Mimosoideae sect. Botrycephalae), a distinctive new species endemic to the Hunter Valley of New South Wales, Australia. *Telopea* 20: 125-136.
- Bell, S.A.J. & Driscoll, C. (2016) Hunter Valley Weeping Myall Woodland – is it really definable and defensible with and without Weeping Myall (*Acacia pendula*)? *Cunninghamia* 16: 15-30.
- Bell, S.A.J. & Walsh, N. (2015) *Leionema lamprophyllum* subsp. *fractum* (Rutaceae); a new and highly restricted taxon from the Hunter Valley of New South Wales. *Telopea* 18: 505-512.
- Bell, S.A.J. & Driscoll, C. (2014) *Acacia pendula* (Weeping Myall) in the Hunter Valley of New South Wales: early explorers' journals, database records and habitat assessments raise doubts over naturally occurring populations. *Cunninghamia* 14: 179-200.
- Bell, S.A.J. & Nicolle, D. (2012) *Eucalyptus expressa* (Myrtaceae): a new and distinctive species from the sandstone ranges north-west of Sydney, New South Wales. *Telopea* 14: 69-76.

- Bell, S.A.J. & Stables, M. (2012) Floristic variability, distribution and an extension of range for the endangered Pittwater Spotted Gum Forest, Central Coast, New South Wales. *Cunninghamia* 12(2): 143-152.
- Bell, S.A.J. (2009) Vegetation and floristics of Columbey National Park, lower Hunter Valley, New South Wales. *Cunninghamia* 11(2): 241-275.
- Bell, S.A.J. (2008) Rare or threatened vascular plant species of Wollemi National Park, central eastern New South Wales. *Cunninghamia* 10(3): 331-371.
- Bell, S., Branwhite, B., & Driscoll, C. (2005) *Thelymitra 'adorata'* (Orchidaceae): population size and habitat of a highly restricted terrestrial orchid from the Central Coast of New South Wales. *The Orchadian* 15(1): 6-10.
- Bell, S.A.J. (2004) Distribution and habitat of the vulnerable tree species, *Angophora inopina* (Myrtaceae), on the Central Coast of New South Wales. *Cunninghamia* 8(4): 477-484.
- Bell, S.A.J. (2004) Vegetation of Werakata National Park, Hunter Valley, New South Wales. *Cunninghamia* 8(3): 331-347.
- Bell, S.A.J. & Copeland, L.M. (2004) *Commersonia rosea* (Malvaceae s.l.: Lasiopetaleae): a new, rare fire-ephemeral species from the upper Hunter Valley, New South Wales. *Telopea* 10(2): 581-587.
- Bell, S.A.J. (2002) Habitat of the endangered *Hibbertia procumbens* (Labill.) DC (Dilleniaceae) from the Central Coast of New South Wales. *Victorian Naturalist* 119(2): 69-74.
- Bell, S.A.J. (2001) Notes on population size and habitat of the vulnerable *Cryptostylis hunteriana* Nicholls (Orchidaceae) from the Central Coast of New South Wales. *Cunninghamia* 7(2): 195-204.
- Bell, S.A.J. (2001). Notes on the distribution and conservation status of some restricted plant species from sandstone environments of the upper Hunter Valley, New South Wales. *Cunninghamia* 7(1): 77-88.
- Bell, S. (2000) An evaluation of vegetation survey and threatened plant species listings in the Hunter Region. Pp. 19-34 IN *Vegetation Management and Biodiversity Conservation in the Hunter Region - Where to from here?* Ed. by M.Fallding. Proceedings of the Public Workshop. Hunter Environment Lobby. Singleton, 12 May 2000.

PUBLICATIONS (OTHERS)

- Bell, S. (in prep) Translocation efforts in *Diuris tricolor* (Pine Donkey Orchid) and *Prasophyllum petilum* (Tarengo Leek Orchid) from the Hunter Valley of NSW: It's all about detection. *Australasian Plant Conservation* (in prep).
- Bell, S. (2018) The responsibilities of ecological consultants in disseminating outcomes from threatened species surveys. *Australasian Plant Conservation* 27: 3-6.
- Bell, S. & Sims, R. (2018) Extensive populations of *Dracophyllum macranthum* (Ericaceae) in Coorabakh NP suggest a review of threat status. *Australasian Plant Conservation* 27: 11-14.
- Bell S.A.J. & Kodala P.G. (2018) *Acacia wollarensis*. In: *Flora of Australia*. Australian Biological Resources Study, Department of the Environment and Energy, Canberra. <https://profiles.ala.org.au/opus/foa/profile/Acacia%20wollarensis>
- Bell, S. (2017) New insights into the ecology of the critically endangered *Banksia conferta* (Proteaceae) from the mid-north coast of NSW. *Australasian Plant Conservation* 26(1): 15-18.
- Bell, S. & Holzinger, B. (2015) Wildfire reveals new populations of the endangered *Commersonia rosea* and *Monotaxis macrophylla* in northern Wollemi National Park, NSW. *Australasian Plant Conservation* 23: 2-4.
- Bell, S. & Elliott, M. (2013) Preliminary results suggest fire is required to maintain *Acacia dangarensis*, a threatened single-population endemic from the Hunter Valley of NSW. *Australasian Plant Conservation* 22(1): 9-10.
- de Lacey, C, Bell, S, Chamberlain, S. & Bossard, K. (2013) Finding the leafless tongue orchid '*Cryptostylis hunteriana*' Nicholls. *Nature New South Wales* Vol. 57 (1) Autumn 2013: 24-25. [online]
- de Lacey, C., Bell, S., & Chamberlain, S. (2012) Habitat of the Leafless Tongue Orchid *Cryptostylis hunteriana* Nicholls throughout its known Australian distribution. *Australasian Plant Conservation* 20(4): 23-25.
- de Lacey, C., Bell, S., Chamberlain, S., & Bossard, K. (2012) Habitat of the Leafless Tongue Orchid *Cryptostylis hunteriana* Nicholls throughout its known Australian distribution. *The Orchadian* 17(4): 162-174.
- Bell, S.A.J. (2010) Defining and mapping an endangered ecological community within Lake Macquarie Local Government Area, New South Wales. *Australasian Plant Conservation* 18(3): 18-19.

- Bell, S., Peake, T. & Driscoll, C. (2007) Dealing with taxonomic uncertainty in Weeping Myall *Acacia pendula* from the Hunter catchment, New South Wales. *Australasian Plant Conservation*. 16(1): 14-15.
- Bell, S. & Driscoll, C. (2005) New records of the endangered *Hibbertia procumbens* from the Central Coast of NSW. *Australasian Plant Conservation* 13(4): 24-25.
- Bell, S.A.J., Parsons, J., & Meldrum, R. (2005) Towards the protection and management of hanging swamps on the Somersby Plateau, Central Coast, New South Wales. *Australasian Plant Conservation* 13(3): 10-11.
- Bell, S. (2003) Another new and highly restricted mallee from the Hunter Valley, *Eucalyptus castrensis*. *Hunter Flora* 11: 2.
- Peake, T., Bell, S., Tame, T., Simpson, J., & Curran, T. (2003) *The Hunter Rare Plants Database: Identification and listing of regionally significant flora for the Hunter Region, New South Wales*. Poster Presentation at the Ecological Society of Australia Annual Conference 2003, Armidale NSW.
- Peake, T., Bell, S., Tame, T., Simpson, J., & Curran, T. (2002) *Warkworth Sands Woodland – An Endangered Ecological Community: Distribution, Ecological Significance and Conservation Status*. Hunter Region Botanic Gardens Technical Paper [www.huntergardens.org.au/]
- Bell, S. (2002) Plant profile: The Leafless Tongue Orchid, *Cryptostylis hunteriana*. *Hunter Flora* 9: 2.

SELECTED UNPUBLISHED TECHNICAL REPORTS (1993 – 2018)

- Bell, S.A.J. (2018) *Monitoring of Acacia pendula flowering in the Weeping Myall Management Area, Singleton LGA*. Unpublished Report to Bulga Coal. August 2018. Eastcoast Flora Survey.
- Bell, S.A.J. (2018) *Vegetation and floristics of the Huntlee Offset Lands, Hunter Valley, NSW: Sweetwater (North Rothbury)*. Unpublished Report to Office of Environment & Heritage. June 2018. Eastcoast Flora Survey.
- Bell, S.A.J. & Sims, R. (2018) *Targeted Surveys for the Vulnerable Dracophyllum macranthum (Ericaceae) in Coorabakh National Park, Lansdowne Plateau, NSW*. Unpublished Report to NSW Office of Environment & Heritage. 21 June 2018. Eastcoast Flora Survey.
- Bell, S.A.J. (2018) *Baseline demography of a significant new population of the Critically Endangered Banksia conferta (Proteaceae), Coorabakh National Park, NSW*. Unpublished Report to NSW Office of Environment & Heritage. June 2018. Eastcoast Flora Survey. Final Report.
- Bell, S.A.J. (2018) *Vegetation and floristics of the Huntlee Offset Lands, Hunter Valley, NSW: 4. Warrawalong (Cessnock LGA)*. Unpublished Report to Office of Environment & Heritage. April 2018. Eastcoast Flora Survey.
- Bell, S.A.J. (2018) *Vegetation and floristics of the Huntlee Offset Lands, Hunter Valley, NSW: 3. Corrabare (Cessnock LGA)*. Unpublished Report to Office of Environment & Heritage. April 2018. Eastcoast Flora Survey.
- Bell, S.A.J. (2018) *Vegetation and floristics of the Huntlee Offset Lands, Hunter Valley, NSW: 2. Elderslie (Singleton LGA)*. Unpublished Report to Office of Environment & Heritage. April 2018. Eastcoast Flora Survey.
- Bell, S.A.J. (2018) *Monitoring of translocated threatened orchids (Diuris tricolor, Prasophyllum petilum) at Mangoola Coal: 2017 Results*. Unpublished Report to Mangoola Coal. February 2018.
- Bell, S.A.J. (2017) *Monitoring of the endangered Pterostylis gibbosa (Orchidaceae) at Milbrodale, Hunter Valley: Year 2 Results*. Unpublished Report to NSW Office of Environment & Heritage. November 2017. Eastcoast Flora Survey.
- Bell, S.A.J. (2017) *A strategy for assessing population size in threatened plant surveys*. Unpublished Report to NSW Office of Environment and Heritage. November 2017.
- Bell, S.A.J. (2017) *Targeted survey for the threatened Diuris tricolor at Persoonia Park, North Rothbury, Hunter Valley*. Unpublished Report to Office of Environment & Heritage. November 2017. Eastcoast Flora Survey.
- Bell, S.A.J. (2017) *Baseline monitoring and survey of the vulnerable Pterostylis chaetophora (Orchidaceae) at North Rothbury, Hunter Valley, NSW*. Unpublished Report to NSW Office of Environment & Heritage. October 2017. Eastcoast Flora Survey.
- Bell, S.A.J. (2017) *Vegetation and floristics of the Huntlee Offset Lands, Hunter Valley, NSW: 1. Cedar Creek (Cessnock LGA)*. Unpublished Report to NSW Office of Environment and Heritage. October 2017.

- Bell, S.A.J. (2017) *Baseline monitoring and survey of the Critically Endangered Pomaderris reperta (Rhamnaceae) and Vulnerable Lasiopetalum longistamineum (Malvaceae), Upper Hunter Valley, New South Wales*. Unpublished Report to NSW Office of Environment and Heritage. October 2017.
- Bell, S.A.J. (2017) *Field Validation of Wetlands Mapping on the Central Coast of New South Wales*. Unpublished Report to NSW Office of Environment and Heritage.
- Bell, S.A.J. (2017) *Mt Dangar Multi-species Saving our Species Project: Year 1 (2016-2017) Summary Report*. Unpublished Report to NSW National Parks and Wildlife Service. June 2017.
- Bell, S.A.J. (2017) *Monitoring of the Critically Endangered Banksia conferta (Proteaceae) at Coorabakh National Park, NSW*. Unpublished Report to NSW Office of Environment and Heritage.
- Bell, S.A.J. (2016) *Monitoring of the endangered Pterostylis gibbosa (Orchidaceae) at Milbrodale, Hunter Valley, NSW*. Unpublished Report to NSW Office of Environment and Heritage.
- Bell, S.A.J. (2016) *Distribution and condition of the threatened Melaleuca biconvexa (Myrtaceae) on the Central Coast of NSW*. Unpublished Report to NSW Office of Environment and Heritage.
- Bell, S.A.J. (2016) *Additional notes on distribution and fragmentation of Warkworth Sands Woodland, from the Hunter Valley of New South Wales*. Unpublished Report to Department of Environment, Ecological Communities Section, Protected Species & Communities Branch, Canberra. April 2016.
- Bell, S.A.J. (2016) *An assessment of the vegetation occurring on coastal sands at Pelican Flats, Lake Macquarie LGA*. Lake Macquarie Research Grant Project 2004/2005-01.
- Bell, S.A.J. & Driscoll, C. (2016) *Volume 1: Vegetation Mapping Report, Lake Macquarie Local Government Area. Stages 1 - 6*. Unpublished Report to Lake Macquarie City Council. March 2016. Eastcoast Flora Survey.
- Bell, S.A.J. (2016) *Volume 2: Vegetation Community Profiles, Lake Macquarie Local Government Area. Working Draft v2*. Unpublished Report to Lake Macquarie City Council. March 2016. Eastcoast Flora Survey.
- Bell, S.A.J. (2016) *Vegetation and floristics of the Columbey Conservation Lands (NP & SCA), lower Hunter Valley, New South Wales*. Unpublished Report to Office of Environment & Heritage (Gloucester). January 2016. Eastcoast Flora Survey.
- Bell, S.A.J. (2015) *Review of Offset Multipliers (Tg values) for Selected Threatened Species*. Unpublished Report to NSW Office of Environment and Heritage. November 2015. Eastcoast Flora Survey.
- Bell, S.A.J. (2015) *Distribution, habitat and conservation status of Macrozamia flexuosa (Zamiaceae) in Lake Macquarie LGA and the lower Hunter Valley of New South Wales*. Lake Macquarie Research Grant Project 1999/2000-02.
- Bell, S.A.J. (2015) *External Review: Draft Threatened Plant Survey Guidelines*. Unpublished Report to Office of Environment & Heritage, NSW Department of Premier and Cabinet. May 2015. Eastcoast Flora Survey.
- Bell, S.A.J. (2015) *Lower Hunter Spotted Gum-Ironbark Forest: Verification Survey, Proposed Newcastle Inner City Bypass (Rankin Park to Jesmond), Newcastle LGA*. Unpublished Report to Roads and Maritime Services. March 2015. Eastcoast Flora Survey.
- Bell, S.A.J. (2014) *Tablelands Snow Gum TEC: Field Survey & Classification Analysis, Southern Tablelands, New South Wales. Tallaganda & Badja State Forest Trial Areas*. Unpublished DRAFT Report to NSW Office of Environment & Heritage. Eastcoast Flora Survey. November 2014.
- Bell, S.A.J. (2014) *Preliminary data analysis of Slaty Gum (Eucalyptus dawsonii) Forests & Woodlands in the Hunter Valley*. Unpublished Report to Department of Environment, Ecological Communities Section, Protected Species & Communities Branch, Canberra. August 2014. Prepared as part of deliberations emanating from the Expert Panel assessing the proposed Central Hunter Valley Eucalyptus Forest and Woodland Complex endangered ecological community.
- Bell, S.A.J. (2014) *Submission on Warkworth Sands Woodland EEC: Warkworth / Mt Thorley Continuation Project*. Unpublished Submission to NSW Department of Planning and Environment. Eastcoast Flora Survey. July 2014.
- Bell, S.A.J. (2013) *Ecological studies on Acacia dangarensis: Baseline data to inform management*. Unpublished Report to NSW Office of Environment & Heritage, Mudgee. October 2013. Eastcoast Flora Survey.
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