Application for a

Department of Environment and Conservation (NSW)

Section 91 Licence

to harm or pick a threatened species, population or ecological community*, or damage habitat under the *Threatened Species Conservation Act 1995.*

1. Applicant's Name: *(if additional persons require authorisation by this licence, please attach details of names and addresses)*	Russell Fletcher Superintendent St Michaels Golf Club Jeff Wagner General Manager St Michaels Golf Club	
2. Organisation name and position of Applicant: *(if applicable)*	St Michaels Golf Club Ltd Course Superintendent	
3. Postal address:	PO Box 375 Maroubra NSW 2035	4. Telephone: [redacted]
5. Location of the action *(including grid reference and local government area and delineated on a map).*	St Michaels Golf Club Jennifer St Little Bay Randwick LGA 338042.00E 6238153.00S Refer to locality map (Figure 2.1) in St Michael's Golf Course Remnant Vegetation Management Plan (Narla Environmental 2013)	
6. Full description of the action and its purpose *(eg. scientific research, environmental assessment, regeneration activities, development etc.).*	1. Ecological restoration activities to improve the condition of the Eastern Suburbs Banksia Scrub endangered ecological community including: • Ongoing bush regeneration works in the remnant native vegetation across the golf course in accordance with the specifications in Section 7 of the St Michael's Golf Course Remnant Vegetation Management Plan (Narla	

* A threatened species, population or ecological community means a species, population or ecological community identified in Schedule 1, 1A or Schedule 2 of the *Threatened Species Conservation Act 1995.*

Environmental 2013);

- all bush regeneration works to be carried out by an appropriately qualified and experienced bush regeneration company.

- Restoration trials within patches of senescing ESBS, including dominant tall shrub removal, soil disturbance and ecological burns within ESBS remnants, consistent with Section 7 of the St Michael's Golf Course Remnant Vegetation Management Plan (Narla Environmental 2013 - in particular, refer to Sections 7.1.12, 7.1.13 and 7.2.2.2);

  - all dominant tall shrub removal and soil disturbance treatments to be carried out by an appropriately qualified and experienced bush regeneration company.

  - all ecological burns to be carried out by NSW Fire and Rescue and/or OEH Parks & Wildlife staff in collaboration with an appropriately qualified and experienced bush regeneration company.

  - see Attachment 1 for location of proposed bush regeneration and restoration trial works (tall shrub removal, soil disturbance and ecological burns).

2. Selective control of ESBS to ensure appropriate maintenance of golf course layout, in-play areas and aesthetic, including:

   - Trimming of ESBS to maintain sight lines. Trimming of tree branches to restrict vertical encroachment on lines-of-sight to holes 4, 5, 6, 11 and 16, as per Section 7 of the St Michael's Golf Course Remnant Vegetation Management Plan (Narla Environmental 2013 - in particular, refer to Sections 7.1.5 and 7.2.1);

     - all trimming is to be carried out by an appropriately qualified and experienced bush regeneration company.

     - see Attachment 1 for location of proposed line-of-sight trimming.

   - Selective control of ESBS species regenerating within presently bare sandy edges to remnant ESBS, in order to maintain golf course aesthetic as well as appropriate vegetation form and density;

     - existing boundaries of all ESBS remnants to be digitally mapped with high-accuracy GPS and physically staked in the field;

       - digital mapping is intended to provide agreed and verifiable extent/boundaries of remnant ESBS at St Michael's Golf Club;

       - physical staking is intended to direct field vegetation management, in particular, to trigger St Michael's Golf Club ground staff protocols with regards to management of ESBS edges in accordance with the St Michael's Golf Course Remnant Vegetation Management Plan (Narla

	Environmental 2013) and this licence; - ESBS remnant areas to be mapped and staked include: ◦ all remnant areas identified under the *Eastern Suburbs Banksia Scrub Endangered Ecological Community Recovery Plan* (NSW Department of Environment and Conservation, 2004); ◦ all proposed critical habitat areas identified under the *Recommendation for the Identification of Critical Habitat for the Eastern Suburbs Banksia Scrub Endangered Ecological Community* (NSW Department of Environment and Conservation, 2006); ◦ additional areas found to be ESBS under the St Michael's Remnant Vegetation Management Plan (Narla Environmental, 2013); ◦ boundaries to EEC that lie outside St Michael's Golf Club land. - staking of ESBS remnants to be implemented as follows: ◦ stakes to be used will be green and yellow plastic stakes that St Michael's uses to mark areas that are 'not in play'; ◦ stakes to be located where they are clearly visible from the rough; ◦ adjacent stakes to be visible from one another (due to variable shapes of ESBS remnants, distance between successive stakes will not necessarily be uniform); ◦ wherever applicable, stakes will be placed at the base of existing ESBS shrub species, at the outermost extent of remnant ESBS cover, in order to minimise the visual aesthetic impact of stakes (i.e. not along the existing bare sand/managed golf course lawn edge; ◦ outer limit of bare sandy edges to be defined as the existing edge to managed golf course lawn areas. ◦ N.B. width of the bare sandy edges is variable throughout the golf course, ranging from 200mm up to 4m at one point. On average, bare sandy edges tend to be closer to 500-1000mm. - all vegetation management within the bare sandy waste edges, including selective control of regenerating ESBS species if required, is to be carried out by an appropriately qualified and experienced bush regeneration company and in accordance with the St Michael's Remnant Vegetation Management Plan (Narla Environmental, 2013); - see Attachment 1 for location of ESBS remnant boundaries to be digitally mapped and physically staked.

7. Details of the area to be affected by the action *(in hectares)*.	Refer to areas marked on the attached site map (Attachment 1) • Bush regeneration works: - maximum total area: ~9.5 ha • Restoration trial plots. Maximum of three 10x10m plots within maximum four sites (within each 10x10m plot, dominant shrub removal throughout, soil disturbance to differing depth within each of two 5x5m sub-plots, ecological burn within one 5x5m subplot, control within remaining 5x5m plot): - maximum total plot area: 0.12 ha • Line-of-sight trimming (10 sites): - maximum total area: 0.621 ha • Potential selective control of ESBS species regenerating into bare sand edge areas: - maximum total area: 0.269 ha • See Attachment 1 for location of proposed restoration trial works, restoration trial plot areas, line-of-sight trimming and bare ESBS sand edges.
8. Duration and timing of the action *(including staging, if any)*.	1. Bush regeneration/ecological restoration activities will be carried out over the next 5 years on a regular and ongoing basis as per the St Michael's Golf Course Remnant Vegetation Management Plan (Narla Environmental 2013). 2. Restoration trial plot activities will be carried out over the next 5 years on a regular and ongoing basis as per the St Michael's Golf Course Remnant Vegetation Management Plan (Narla Environmental 2013). 3. Potential selective control of ESBS species regenerating into bare sand edge areas will be carried out over the next 5 years on a regular and ongoing basis as per the St Michael's Golf Course Remnant Vegetation Management Plan (Narla Environmental 2013). 4. Trimming of ESBS remnants will be carried out up to on an approximately bi-annual basis as part of ongoing course maintenance as per the St Michael's Golf Course Remnant Vegetation Management Plan (Narla Environmental 2013).
9. Is the action to occur on land declared as critical habitat*? *(please tick appropriate box)*	Yes: ☐ No: ☑

10. Threatened species,	Scientific Name	Common Name *(if known)*	Conservation Status	Details of no. of individual

* Critical habitat means habitat declared as critical habitat under Part 3 of the *Threatened Species Conservation Act 1995*.

populations or ecological communities to be harmed or picked.	Eastern Suburbs Banksia Scrub (ESBS)		*(i.e. endangered or vulnerable)* Endangered Ecological Community (NSW & Commonwealth)	animals, or proportion and type of plant material *(eg. fertile branchlets for herbarium specimens or whole plants or plant parts)* Area to be affected is shown in Attachment 1.
	(potential) Bangalay Sand Forest		Endangered Ecological Community (NSW)	All areas of potential Bangalay Sand Forest occur in areas previously identified as ESBS, as shown in Attachment 1 (see vegetation community mapping within St Michael's RVMP (2013).

11. Species impact: *(please tick appropriate box)* a) For action proposed on land declared as critical habtat; or b) For action proposed on land not declared as critical habitat.	An SIS is attached – n/a Items 12 to 25 have been addressed ☑

N.B: Provision of a species impact statement is a statutory requirement of a licence application, if the action is proposed on critical habitat.
The provision of information addressing items 12 to 17 is a statutory requirement of a licence application if the action proposed is not on land that is critical habitat. Information addressing any of the questions below must be attached to the application.

12. Describe the type and condition of habitats in and adjacent to the land to be affected by the	1. The site is a golf course which supports remnants of ESBS, Coastal Heath, Coastal Dune Forest and potentially Bangalay Sand Forest of variable size and condition. The type and condition of the bushland on the golf course is covered in more detail in Sections 5 and 6 of the St Michael's

action.	Golf Course Remnant Vegetation Management Plan (Narla Environmental 2013). Section 7.2 outlines the condition of each remnant in more detail and provides recommendations for management actions.
13. Provide details of any known records of a threatened species in the same or similar known habitats in the locality *(include reference sources)*.	ESBS and Littoral Rainforest are also present in the locality. There are 6 patches of ESBS in Botany Bay NP, La Perouse and Little Bay as well as other patches at Jennifer St, Prince Henry Hospital and the NSW Golf Course. For more detail see Table 1 in the ESBS Recovery Plan. The Sydney Freshwater Wetlands EEC is present on adjacent but unaffected land in the NSW golf course. There are records for other threatened species in the locality including Green and Golden Bell Frog, Eastern Bentwing Bat, *Acacia terminalis subsp. terminalis*, Wallum Froglet and Powerful Owl. ESBS remnants at St Michael's may provide habitat for these threatened species.
14. Provide details of any known or potential habitat for a threatened species on the land to be affected by the action *(include reference sources)*.	The bushland at St Michael's golf course provides habitat for the ESBS, and potentially Bangalay Sand Forest, EEC.
15. Provide details of the amount of such habitat to be affected by the action proposed in relation to the known distribution of the species and its habitat in the locality.	Out of a total distribution of 149ha, and 36.48ha in the locality: - a maximum of ~9.5ha of ESBS will be affected by bush regeneration works, which are considered to be of benefit to the vegetation community; - 0.621ha will be affected by renewed and ongoing line-of-sight trimming; - ~0.269ha of potential ESBS regeneration into bare sand edges to ESBS may be selectively controlled.
16. Provide an assessment of the likely nature and intensity of the effect of the action on the lifecycle and habitat of the species.	1. Ecological restoration including thinning of dominant species in senescing bushland, ecological burns, soil disturbance and weed removal is expected to improve the condition of ESBS at St Michael's Golf Club. Removal of Bitou Bush, which is a Key Threatening Process for ESBS, as well as a range of other noxious and environmental weed species, and stimulating germination of seed in the soil seed bank in areas where the vegetation is fragmented and senescent is to be undertaken. 2. Line-of-sight trimming will not reduce the extent of ESBS at St Michael's golf course but it will alter the structure of the vegetation. Consequently, it needs to be undertaken to the minimum extent necessary for the functioning of the golf course

	by appropriately qualified and experienced bush regeneration contractors. 3. Any selective control of regenerating ESBS will only be undertaken in areas that currently do not contain ESBS (i.e. bare sand edge areas).
17. Provide details of possible measures to avoid or ameliorate the effect of the action.	All works will be undertaken by an appropriately qualified and experienced bush regeneration contractor and will be carried out in accordance with the specifications in Section 7 of the St Michael's Golf Course Remnant Vegetation Management Plan (Narla Environmental 2013). Ecological burns will be carried out as described in Section 7 of the St Michael's Golf Course Remnant Vegetation Management Plan (Narla Environmental 2013 - in particular, refer to Sections 7.1.12, 7.1.13 and 7.2.2.2) and they will be followed up with weed removal as required in the areas burnt. The results of any ecological burns will be monitored as per section 7.2.2.2 of the St Michael's Golf Course Remnant Vegetation Management Plan (Narla Environmental 2013) and the results will be provided to OEH as part of the reporting requirements for this licence. Line-of-sight trimming will be managed to minimise impacts on ESBS by following the recommendations in Section 7 of the St Michael's Golf Course Remnant Vegetation Management Plan (Narla Environmental 2013 - in particular, refer to Sections 7.1.5 and 7.2.1) and using appropriately qualified and experienced bush regenerators to undertake the works.

N.B: The Director-General must determine whether the action proposed is likely to significantly affect threatened species, populations or ecological communities, or their habitats. To enable this assessment the Applicant is required to address items 18 to 25. Information addressing any of the questions below must be attached to the application.

18. In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.	Not applicable because no threatened species will be impacted by the works.

19. In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction.	Not applicable because no endangered populations will be impacted by the works.
20. In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed: (i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or (ii) Is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.	(i) Ecological restoration activities, including ecological burns, should have a beneficial effect by increasing the quality and condition of the ESBS remnants on St Michael's golf course over time. Line-of sight-trimming will not affect the extent of the ESBS at St Michaels but it has the potential to alter the composition and reduce the viability of the community. Any selective control of regenerating ESBS will only be undertaken in areas that currently do not contain ESBS (i.e. bare sand edge areas). Consequently all works must be undertaken as recommended in Section 7 of the St Michael's Golf Course Remnant Vegetation Management Plan (Narla Environmental 2013) and using appropriately qualified and experienced bush regenerators to undertake the works. (ii) Ecological restoration activities aim to increase the species diversity within the ESBS remnants at St Michael's Golf Club which will have a beneficial effect on the composition of the ESBS. Line-of-sight trimming will alter the structure of the ESBS being trimmed and over time this may result in a reduction in the number of species present Any selective control of regenerating ESBS will only be undertaken in areas that currently do not contain ESBS (i.e. bare sand edge areas).
21. In relation to the habitat of a threatened species, population or ecological community: (i) the extent to which habitat is likely to be removed or modified as a	(i) Ecological burns, soil disturbance and associated preparatory works (see Section 7.2.2.2, St Michael's Golf Course Remnant Vegetation Management Plan [Narla Environmental 2013]) may

result of the action proposed, and (ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and (iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.	modify the ESBS habitat in the short term due to a reduction in the above ground vegetation. However, it is intended to improve the habitat in the longer term by increasing species diversity within the treated remnants. Weed control before and following the burns and soil disturbance treatments will also improve the condition of these habitats. Line-of-sight trimming will not remove the ESBS but it will modify the structure of the trimmed areas. (ii) There are several tracks through the ESBS remnants which will be allowed to regenerate. This will increase the extent of these remnants. No further clearing of tracks will occur within remnant vegetation at the golf course. (iii) All ESBS habitat is important given the restricted nature of this endangered ecological community and the degree of clearing that it has experienced in the past. Restoration works, including ecological burns and weed removal may modify the ESBS habitat in the short term but in the longer term, once the vegetation has recovered from burning and the disturbance associated with weed removal, habitat for this endangered community will improve. Line-of-sight trimming will modify the structure and, in the longer term, the composition of the habitat for ESBS but this will be restricted to a fairly small area (see question 7).
22. Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly).	A draft report recommending the identification of Critical Habitat for ESBS has been prepared. Ecological burns and restoration activities, if undertaken in line with the recommendations in the St Michael's Golf Course Remnant Vegetation Management Plan (Narla Environmental 2013) are unlikely to have an adverse impact on this proposed Critical Habitat for the reasons outlined below in question 24. Line-of-sight trimming will not reduce the extent of this proposed Critical Habitat for ESBS, but as outlined above, it will modify the structure and composition of the trimmed vegetation. Any selective control of regenerating ESBS will not affect existing Critical Habitat.
23. Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan.	The ecological burns and associated restoration activities are consistent with the following objectives and actions in the Recovery Plan for ESBS: *9.3 Threat management and ecological restoration* *To restore and where practical connect and enlarge remnants of ESBS through appropriate management.* Line of sight trimming is not consistent with any objectives and actions in the Recovery Plan.
24. Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key	Ecological burns and associated restoration and management activities address the following Key Threatening Processes for ESBS: 1. High frequency fire - both high frequency fire and fire exclusion reduce species diversity, therefore reinstatement of an appropriate fire regime as per the recommendations in the St Michael's Golf Course Remnant Vegetation

threatening process.	Management Plan (Narla Environmental 2013) will reduce the impact of this KTP. 2. Invasion of native plant communities by Bitou Bush and exotic perennial grasses – ecological restoration activities before and after the ecological burns will reduce this threat to ESBS at St Michaels golf course. Line-of-sight trimming will result in modifications to the structure and composition of the trimmed vegetation and could therefore be considered to be part of the vegetation clearing KTP. Potential selective control of regenerating ESBS will only be undertaken in areas that currently do not contain ESBS (i.e. bare sand edge areas), and thus are not considered to constitute part of the operation of any KTP.

Important information for the Applicant

Processing times and fees

The *Threatened Species Conservation Act 1995* provides that the Director-General must make a decision on the licence application within 120 days where a species impact statement (SIS) has been received. No timeframes have been set for those applications which do not require a SIS. The Director-General will assess your application as soon as possible. You can assist this process by providing clear and concise information in your application.

Applicants may be charged a processing fee. The Director-General is required to advise prospective applicants of the maximum fee payable before the licence application is lodged. Therefore, prospective applicants should contact the DEC prior to submitting a licence application .

A $30 licence application fee must accompany a licence application.

Protected fauna and protected native plants*

Licensing provisions for protected fauna and protected native plants are contained within the *National Parks and Wildlife Act 1974.* However, a Section 91 Licence may be extended to include protected fauna and protected native plants when these will be affected by the action.

If you are applying for a licence to cover both threatened and protected species please provide the information requested in Item 10 and a list of protected species and details of the number of individuals animals or proportion and type of plant material which are likely to be harmed or picked.

Request for additional information

The Director-General may, after receiving the application, request additional information necessary for the determination of the licence application.

Species impact statement

* Protected fauna means fauna of a species not named in Schedule 11 of the *National Parks and Wildlife Act 1974.*
Protected native plant means a native plant of a species named in Schedule 13 of the *National Parks and Wildlife Service 1974.*

Where the application is not accompanied by a SIS, the Director-General may decide, following an initial assessment of your application, that the action proposed is likely to have a significant effect on threatened species, populations or ecological communities, or their habitats. In such cases, the *Threatened Species Conservation Act 1995* requires that the applicant submit a SIS. Following initial review of the application, the Director-General will advise the applicant of the need to prepare a SIS.

Director-General's requirements for a SIS

Prior to the preparation of a SIS, a request for Director-General's requirements must be forwarded to the relevant DEC Office. The SIS must be prepared in accordance with section 109 and 110 of the TSC Act and must comply with any requirements notified by the Director-General of the Department of Environment and Conservation (NSW).

Certificates

If the Director-General decides, following an assessment of your application, that the proposed action is not likely to significantly affect threatened species, populations or ecological communities, or their habitats, a Section 91 Licence is not required and the Director-General must, as soon as practicable after making the determination, issue the applicant with a certificate to that effect.

N.B: An action that is not required to be licensed under the Threatened Species Conservation Act 1995, may require licensing under the National Parks and Wildlife Act 1974, if it is likely to affect protected fauna or protected native plants.

I confirm that the information contained in this application is correct. I hereby apply for a licence under the provisions of Section 91 of the *Threatened Species Conservation Act 1995.*

Applicant's name, organisation and position *(Please print)*
Russell Fletcher
St Michael's Golf Course
Superintendent

Applicant's signature

Date 11/12/13

For more information or to lodge this form, contact the OEH Regional Operations Group in your nearest office:

Sydney Metro Branch	Southern Branch	Northern Branch	Western Branch
P: 02 9995 5000	P: 02 6122 3100	P: 02 6640 2500	P: 02 6841 9800
F: 02 9895 6548	F: 02 6299 3525	F: 02 6642 7743	F: 02 6882 9217
PO Box 644	PO Box 622	PO Box 498	PO Box 1020
Parramatta	Queanbeyan	Grafton	Dubbo
NSW 2150	NSW 2620	NSW 2460	NSW 2830

Office of Environment and Heritage
Head Office, PO Box A290, Sydney South NSW 1232
Phone: 2 9995 5000 (switch) Fax: 9995 5999 Email: info@environment.nsw.gov.au

Legend

- Remnant ESBS and recommended critical habitat (as per OEH Recovery Plan mapping)
- Trial restoration plot areas (incl. ecological burns)
- Bush regeneration works
- ESBS boundary staking
- Line-of-sight trimming

St Michael's Golf Club proposed bush regeneration, line-of-sight trimming, trial restoration plot (including ecological burns) and boundary stake areas (2013-2019)

Attachment 1

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