

STATEMENT OF ENVIRONMENTAL EFFECTS

Statement of environmental effects for:

New dwelling and on-site wastewater system
Little Wobby, Hawkesbury River, NSW

Date: 10th July 2020

Address: Lot 60 Little Wobby, Hawkesbury River,
NSW 2083
Lot 60 DP 7842.

Prepared By: Stephen Crosby & Associates Pty. Ltd.
PO Box 204 Church Pt. NSW 2105

For: I. Thew

Planning documents:

- Gosford LEP 2014
- Gosford DCP 2013
- SEPP Coastal Management

The Application:

The application is to construct a new dwelling with its own on-site wastewater disposal system at this water access only site on the Hawkesbury River. The works are proposed on freehold land above the Mean High Water Mark at Lot 60 Little Wobby, on the eastern shore of the Hawkesbury River adjacent to Dangar Island.

The proposal is set out on drawings prepared by Stephen Crosby & Associates Pty. Ltd. comprising-

- 2110 – DA 01 Site Plan, Landscape Plan
- 2110 – DA 02 Floor Plans
- 2110 – DA 03 Elevations
- 2110 – DA 04 Section and Roof Plan

2110 – SD 01 – SD 03 Shadow Diagrams

Additional supporting documents: -

Site survey drawing prepared by Waterview Surveying services,
Ref 1090detail covering the foreshore & jetty area.

Boundary Mark-out Survey by Central Coats Surveyors dated 2/02/2020

Geotechnical Report prepared by Ascent Geotechnical dated 3/06/2020

Bushfire Assessment prepared by Bushfire Consultancy Australia dated April 2020

Effluent Management report prepared by Blue Mountains Geological dated May 2020

BASIX Report No.1104504S with NatHERS Certificate No.0004929220

Tree Report by Julia Stanton dated June 2020

Site: Lot 60 Little Wobby, Lot 60 DP 7842. Zone E2 Environmental Conservation.

The site is located on the eastern shore of the Hawkesbury River opposite Dangar Island. The site rises at grade from a levelled area behind an existing natural stone seawall with concrete pathway straddling the Mean High Water Mark (MHW by Title). The site is a vacant site with no existing development apart from the pathway. A separate Development Application for a jetty below the MHW on the site is being prepared concurrently with this new dwelling application. Access to the site is by water only, with no existing jetty facilities.

To the south is a residential property known as lot 1 DP 601197 Little Wobby with its own boat shed and swimming pool extending out into the waterway.

To the north is a residential property known as Lot 61 Little Wobby with its own dwelling, boat shed and derelict jetty.

A detailed survey plan of waterfront area of the site has been prepared for this proposal identifying waterfront structures, the existing path and embankment, as well as showing adjacent structures.

Proposal:

The proposed works are the construction of a new steel framed two storey dwelling, with rainwater collection and storage tanks, and an on-site wastewater treatment and disposal system. The configuration of the dwelling and tanks is to keep the structures as close to the shoreline providing the greatest distance between structures and the National Park bush fire hazard to the east.

Details of the proposal are as follows:

Site area: 758.7m²

DWELLING

Maximum Height	9.5m	roof eaves feature
	8.9m	wall
Storeys	2	
Floor area	124.4m ²	L1 & L2
Deck area	26.2m ²	
Porch area	5.2m ²	
Total	155.8m ²	FSR 20.5% Complies

Setbacks-

North (Lot 61) 2.75m dwelling and decks

South (Lot1 DP601197) 1.55m dwelling
1.0m water tank

Site Coverage:

Site area: 758.7 m²

Hard surface (dwelling, decks & paving) 87.1 m² 11.5% Complies

Survey:

A survey of the site and neighbouring area shows foreshore features, the mean high water mark, seabed contours and spot levels and marine structures (with levels noted).

Access and Services:

There is no road access to the site so all materials shall be brought by barge to the site. The site is serviced with electrical power.

Spatial separation:

The proposed dwelling is located well inside the property boundaries with the neighbouring sites.

Setbacks-side boundaries

North (Lot 61) 2.75m dwelling and decks

South (Lot1 DP601197) 1.55m dwelling
1.0m water tank

Setbacks-neighbouring dwellings

North (Lot 61) 7.1m dwelling to dwelling
6.0m dwelling to neighbouring deck

South (Lot1 DP601197) 8.5m dwelling to dwelling

Designated slip area:

The site is zoned potential landslip. A Geotechnical Risk Analysis report has been prepared and accompanies this application. Refer report Ref. prepared by Ascent Geotechnical Consulting dated 3rd June 2020 that supports this application.

The report determined “The proposed development is considered suitable for the site. No significant geotechnical hazards will result from the completion of the proposed development..” The report goes on to list Geotechnical Recommendations to be followed during construction. These recommendations shall form part of the Construction Contract.

Bushfire Risk:

The site is in an area with a recognised bush-fire risk. Building work will be to the standards recommended in the Australian Standard for building in bush-fire prone areas, AS 3959-2018, and Part 3.7.4 of the BCA.

A separate report prepared by Bushfire Consultancy Australia has been prepared, Ref 601it-01 identifying the bushfire attack level as BAL 40 and recommending a minimum construction standard of BAL 40 AS3959-2018 for the dwelling, with a drop of one level to BAL29 for the western facade and, construction requirements shall be varied to comply with the requirements of the NSW Rural Fire Service Addendum to Appendix 3 of Planning for Bushfire Protection 2006.

Water tanks with a total capacity of 30,000L are to be provided on site. One tank is to have a 65mm Stortz fitting and ball gate valve.

A portable fire pump 3kW (5hp) with hose and fittings shall be maintained on site.

All opening windows shall be screened with metal screens to BAL 40 Construction Standard of AS3959–2018

Vegetation on the site shall be suitable for maintaining the nominated area of the site as an effective Asset Protection Zone and Inner Protection Area.

Where gutter guards are installed the material shall be non-combustible.

The site is to be managed as an Asset Protection Zone from the MHW to 15m east of the dwelling.

Little Wobby Rivershores Character Statement:

This development application is to erect a modest private dwelling, with associated rain water catchment and storage, and on-site wastewater treatment and disposal, on the shoreline of the Lower Hawkesbury River. The dwelling shall be located towards the river frontage in a similar fashion to the neighbouring dwellings in Little Wobby, but shall not cross over the Mean High Water Mark onto the Crown Land waterway.

The dwelling and its associated structures, shall be sited on the more open cleared area of the site directly above the Mean High Water Mark.

The dwelling and its associated water storage tanks shall occupy only 25% of the site with the remaining 70% left in its natural bushland state. The site is classified as bushfire prone land and an asset protection zone (APZ) has been recommended for the site in the Bushfire Risk Assessment supporting this application. This zone shall be managed as an Inner Protection Area, and extends from the dwelling to the north, west and south site boundaries, and 15m up the site to the east, beyond the water storage tanks. Siting the dwelling close to the western MHW boundary allows for a significant part of the site to remain in its natural state.

The entire dwelling shall be constructed in non-combustible materials in accordance with AS3959-2018, and Appendix 3 where applicable on the west elevation with its reduced BAL level of 29.

The wastewater disposal system uses a series of small trickle irrigation pipes laid over the topsoil just below the mulch layer causing minimal impact on the native vegetation on the site.

The proposed dwelling shall be partially screened from the waterway by mangroves and coastal she-oaks (*Casuarina glauca*).

Underneath the waterfront deck are the two partially embedded wastewater treatment system tanks (AWTS), screened from the waterway by a hardwood screen in compliance with Table F of Appendix 3 to AS3959-2018.

Those parts of the site not occupied with the buildings or decking shall be largely vegetated with a mix of ground covers and shrubs selected from Council's indigenous species list. There are 19 trees located within 5m of the proposed dwelling. A number of indigenous trees are to be retained on the site. Some small to medium sized trees in the footprint of the dwelling are to be removed.

The matching form, character and finishes of the dwelling compliment the existing neighbouring dwellings and are sympathetic to the residential structures in the Little

Wobby community.

The light weight framed construction ensures minimal interference with the existing natural topography. Footings shall be dug by hand or small machine for the steel post framing. There will be some minor excavation for the two wastewater treatment tanks under the dwelling and the 3 water collection and storage tanks behind and above the dwelling. All site works shall be located in the lower 25% of the site close to the MHW, leaving the remaining 75% of the site largely untouched.

Side boundary setbacks are similar to those of the existing adjacent dwellings, with a 7m clearance to the dwelling to the north and over 8m to the dwelling to the south.

The dwelling shall be shaded from the west by stepped decks and large eave projections protecting glazed areas putting the building in shade reducing visual prominence from the waterway. Combined with the tree growth along the waterfront and the overhanging canopy the dwelling will sit quietly within the native landscape.

The existing concrete pathway along the water's edge across the bottom of the site shall be retained.

Due to the siting of the proposed dwelling forward of, and angled slightly away from, the adjacent dwelling to the north on Lot 61, there will be no resulting privacy issues with the decks on both properties. The decks are in excess of 8m apart with opportunities for screen planting if desired.

The waterfront decks on the existing dwelling to the south are over 12m from the waterfront decks on the proposed dwelling with a number of trees providing screening for privacy.

Construction methods:

Materials shall be brought to the site by barge.

Signs shall be placed on the pathway frontage warning of the danger of construction and advising of restricted access.

Storage areas for building materials and sediment control barriers are shown on the Site Plan No.2110- DA01.

Site disturbance:

Refer to Site Plan drawing No. 2110 - DA01 for areas of the site to be worked on and the location of sediment barriers.

Excavation:

Excavation for pier footing for the dwelling and cuts for the wastewater and rainwater tanks shall be by hand or small machine brought to the site by barge. Spoil from excavation shall be removed from site by barge and disposed of at an authorised disposal site.

Dwelling Construction Materials:

The proposed dwelling is a two storey steel framed structure behind the Mean High Water Line with an open deck to the west facing the water. The design follows similar forms to neighbouring dwellings in Little Wobby.

The form, materials and colouring of the dwelling shall compliment neighbouring dwelling along the Hawkesbury River waterfront. External materials and colours shall cause the structure to blend in with the natural treed environment..

The dwelling shall be built to BAL 40, with a reduction to BAL 29 of AS 3959 2018 plus addendum to Appendix 3 of PBP, on the western elevation fronting the Hawkesbury River.

Proposed construction;

- Painted steel floor framing on concrete pier footings
- Pre-finished corrugated steel sheet wall cladding, and Table F hardwood on the riverfront facade
- Fire retardant sarking to external walls
- Windows and Doors BAL 40 – metal frames with steel screens
- Roof Colorbond metal sheeting
- Decking Bal 29 hardwood or tiles to the western decks

Parking:

No provision for on-site parking is included with this proposal.

Solar access:

The dwelling is to the south of the dwelling on Lot 61 and 8.5m north of the dwelling on Lot1 DP 601197 to the south. No significant overshadowing results from the dwelling or deck structures. Shadow diagrams 2110 – SD 01 to SD 03 support the application.

Morning (9.00 AM) sunlight in winter up to equinox is screened or filtered by the tree canopy and high range directly to the east of the site. Theoretical shadowing is shown on Shadow Diagrams 2110 – SD 01 Mid winter and 2110 – SD 02 Equinox. In mid-summer the 9.00 AM shadow is cast straight out over the foreshore.

Noon shadows fall over the southern neighbour's water tanks in mid winter, retreating back to the common boundary in mid-summer.

3.00PM afternoon shadows in mid-winter fall on the ground behind the proposed dwelling and onto the neighbouring water tank 8m above the dwelling. Equinox and mid-summer afternoon shadows fall largely on the subject site. With no impact on neighbouring properties.

Ecologically sustainable development:

Stormwater from the dwelling shall be collected and stored in 3 collection tanks directly behind dwelling. An automatic pump shall pressurise the house supply.

Overflow from the collection tanks shall be piped to the waterway to avoid soil erosion. The locations of stormwater collection and storage tanks are shown on the Site Plan No.

2110 - DA 01.

Wastewater is collected and treated in two Aerobic Wastewater treatment Tanks and piped to an absorption field in the centre of the site above the dwelling. Refer to the Effluent Management Report supporting this application.

BASIX Certificate No.1104504S supports this application. Document NatHERS Certificate No.0004929220 lists the energy commitments for the proposal. Insulation and energy use shall be in accordance with requirements of this certificate. All water shall be from rainwater collected and stored in tanks on site.

A Tree Assessment prepared by Syncarpia Vegetation Management supports the application, detailing 19 existing trees, both native and exotic species, within 5m of the proposed new dwelling. 13 small to medium trees, both native and exotic species, are marked for removal, and their size, health and condition is detailed in Table 1 of the report.

Landscape planting shall be local indigenous species from the plan list in the Arborist's Tree Report.

Waste Management:

Construction waste generated during building shall be taken by barge to Brooklyn and trucked to an authorised waste depot for sorting and recycling where appropriate.

Storm water:

No stormwater issues shall result from this proposal.

Fences:

No fences are proposed with this application.

SEPP COASTAL MANAGEMENT 2018

The policy applies to this site.

Division 3 Coastal environment area

- (1)
 - (a) The proposed dwelling shall have no adverse impact on the integrity and resilience of the biophysical, hydrological and ecological environment.
 - (b) The size, bulk and scale of the dwelling is in keeping with others on the foreshore of Little Wobby and the adjacent Dangar Island. Coastal processes are unaffected.
 - (c) N/A
 - (d) N/A
 - (e) **Access** Foreshore public access is maintained with the existing walkway along the Mean High Water Mark, and unchanged with this proposal.
 - (f) No impact envisaged.
 - (g) N/A

- (2)
 - (a) The proposed dwelling shall have no adverse impact as above.
 - (b) The proposed 124m² dwelling is modest in size and have been designed to minimise

impacts on the natural environment.

(c) N/A

(3) N/A

Division 4 Coastal use area

(1) (a) (i) Public access along the foreshore is unchanged with this proposal

(ii) No overshadowing or loss of views.

(iii) N/A

(iv) N/A

(v) N/A

(b) (i) No adverse impacts anticipated

(ii) N/A

(iii) N/A

(c) The size, bulk and scale of the proposed dwelling is in keeping with similar structures on the foreshore of the Hawkesbury River.

(2) N/A

Division 5 General

15 No increase to coastal hazards as the works are above the Mean High Water Mark.

16 Consent authority to consider.

17 Consent authority

18 N/A

STEPHEN CROSBY