

**8.1 ENVIRONMENTAL CONSTRAINTS / LAND CAPABILITY  
MAP OF THE OXFORD FALLS LOCALITY****Reporting Officer**

General Manager

**Purpose**

To report to Council on the strategic land capability assessment of the Oxford Falls Valley Locality and preparation of the Environmental Constraints / Land Capability Map.

**Summary**

The Department of Planning are in receipt of numerous submissions from landowners in the Oxford Falls Valley. Under the provisions of SEPP (Major Projects) 2005, residential and commercial developments whose total value after development is \$50 million or greater are subject to the discretionary call-in powers for the Minister for Planning, making either the Minister or the Department of Planning the consent authority for such applications.

The Minister has requested that Council provide its response to these proposals. To do this Council has undertaken an overall strategic land capability assessment of the Oxford Falls Valley locality via a series of maps, and the production of an overall environmental constraints map.

This report provides the rationales and the methodology behind this land capability assessment and production of the environmental constraints map.

**Impact on Council Budget**

Nil

**RECOMMENDATION OF DIRECTOR PLANNING AND ASSESSMENT SERVICES**

That:

1. The Environmental Constraint Land Map (and report) be provided to the Minister and Department of Planning.
2. Further land release/subdivision within the Oxford Falls Valley not be approved due to the constraints of the land, inconsistency with the Metropolitan Strategy and extreme bushfire hazard.

## **REPORT**

### **Background**

The Department of Planning is in receipt of numerous submissions from landowners in the Oxford Falls Valley. Under the provisions of SEPP (Major Projects) 2005, residential and commercial developments whose total value after development is \$50 million or greater are subject to the discretionary call-in powers from the Minister for Planning, making either the Minister or the Department of Planning the consent authority for such applications.

The Minister has requested that Council provide its response to these proposals, having first undertaken an overall strategic land capability assessment of the Oxford Falls Valley locality.

The Department have therefore requested that a series of maps be produced to assist in determining the land capability of the Oxford Falls Valley (B2) locality under Warringah Local Environmental Plan 2000 (WLEP). This mapping has been developed and used as part of a strategic overview to determine the possible extent of environmental impact posed by these individual development proposals through the development of an overall environmental constraint map, delineating the most constrained to the least constrained land.

Councils certified bushfire map was considered separate and therefore not included within the preparation of the environmental constraint land map. Noteworthy also is the inconsistency of the proposals with the Sydney Metropolitan Strategy, and therefore State Governments position with regard to development within the non-urban lands of Warringah. Further details of which are excluded from this report.

This report provides the rationale and the methodology behind this land capability assessment, which will also form part of the background study and investigations being undertaken for the draft Warringah Local Environmental Plan, into developing an appropriate land use for the non-urban land. The data produced and analysis undertaken will therefore be consistently applied throughout Warringah Local Government area and will form the basis of environmental controls that form part of the new instrument.

### **Environmental Constraints / Land Capability Map Methodology**

The composite environmental constraints map has required the development of a methodology to combine numerous layers of environmental information in a manner that enables the identification of the most severely constrained land through to lands containing no significant impediment to urban development. The methodology used to develop this map is discussed below.

As part of the overall strategic assessment of environmental constraint impacting the Oxford Falls B2 locality, the criteria contained within Table 1 was utilised, using a weighted breakdown that reflects the extent of the constraint to development relative to other constraints.

The type of constraint and their data sources are provided in Attachment 1. Each of these sources are either the adopted position of Council with regard to the management of the constraint in question or have been gazetted by the State Government. Each constraint makes use of the same breakdown of significance as is used in their source documents, and the scores have been allocated accordingly.

The weighting of the scores has been undertaken in close consultation with Council's Catchment Services Unit and Conservation and Land Use Management Unit. This weighted scoring system has been devised to consider the relative sensitivity of specific constraints, or level of impediment to development created by the constraint, in comparison to that created by other constraints.

In developing the weighted criteria, it was determined that points should be allocated based upon the following rationales:

- Highly threatened vegetation communities listed within the Threatened Species Conservation Act 1995 should be allocated the highest relative weighting (maximum 20 points) due to their statutory status in legislation and the state and national significance of these communities.
- The restrictive nature of developing upon land with slope constraints necessitates a relatively high relative weighting (maximum 15 points for 1 in 3 slopes). This is due to the highly erodable nature of soils in the B2 locality, the potential for land degradation within the Narrabeen Lagoon catchment and the significant and measurable sedimentation/siltation impacts downstream into Narrabeen Lagoon.
- Location within a riparian corridor or within the probable maximum flood zone are both significant constraints to urban development, which is reflected in their equal maximum possible score of 12 points. (Council uses the probable maximum flood measure in all of its flooding assessment work and is in turn based upon State government best practice standards as set by the Department of Environment and Conservation). However, more so than the environmental constraints discussed above, there is some scope to minimise the impacts upon riparian zones caused by development through acceptable design solutions. Similarly, development can be designed in such a way so as to minimise the impact of flooding upon development. Accordingly, these constraints are significant though have not been allocated the highest relative weightings.
- The Warringah Natural Area Survey represents Council's adopted position on that status of sensitive terrestrial features, including significant vegetation communities, fauna habitat and ecological corridors. In particular, the Survey suggests the values and priorities allocated to various wildlife corridors, which is dependent upon the size and integrity of in-tact areas of natural bushland to which they link. For example, the Priority 1 corridor links the bushland either side of Forest Way, Belrose – both of which are known native fauna habitat. As such, Council's policies are to recognise these corridors, their spatial requirements (including dedications of land for this purpose) and more broadly the limitations they place on the extent of urban development. This means they have some relative weight in determining the suitability of land for development

(maximum 10 points), but not as high as others such as threatened species vegetation, slope, and riparian zones.

- Wetlands are recognised as having particularly important functions for maintaining catchment water quality and health. While these actual communities are captured in the Significant Vegetation criterion, the Natural Area Survey suggests further that land within 100 metres of the community is an area within which caution is to be exercised, particularly in relation to urban development. As such, these areas do not have the highest relative weighting (maximum 7 points) though the precaution and additional development requirements in these areas warrant consideration in determining land capability.
- Other constraints that have a lesser impact upon land capability for urban development are acid sulfate soils and location within the statutorily defined NSW Coastal Zone. These constraints impact only the north-eastern extent of the B2 locality. Neither development upon land containing acid sulfate soils, nor within the Coastal Zone serve as major restrictions to urban development. Instead, they require that a number of additional matters be considered as part of the development application process.

The cumulative scores determine overall land capability for any particular piece of land, in accordance with the total weighted in the Table 1 below:

Scores = 30-70	Prohibitive environmental constraints to development	
Scores = 20-29	Severe environmental constraints to development	
Scores = 10-19	Significant environmental constraints to development	
Scores = 1-9	Moderate environmental constraints to development	
Score = 0	No significant environmental constraints to development	

(Max Score = 70)

Table 1: Criteria of Environmental Constraint

The practical effect of this weighted scoring approach is that if land contains any two or three of these constraints, the affected land becomes classified as significantly constrained to prohibitive for urban development.

The final result after the application of the above-mentioned weighted scoring approach being the production of an Environmental Constraints / Land Capability Map for the Oxford Falls Valley Locality (see *Attachment 2*).

As well as being used to help Council in its evaluation of the numerous submissions to the Department of Planning from landowners in the Oxford Falls Valley locality, this analysis will also form part of the background study and investigations being undertaken into developing an appropriate land use strategy for the non-urban land for the new Warringah Local Environmental Plan.

**Conclusion**

In response to a request by the Department of Planning, land capability assessment of the Oxford Falls Valley locality has been completed.

Through this process a series of constraint maps were used to develop an overall Environmental Constraints / Land Capability Map, the methodology of which has been detailed within this report.

As well as helping Council's evaluation of the numerous submissions to the Department of Planning, this work will also now form part of the background study and investigations being undertaken into developing an appropriate land use strategy for the non-urban land for the new Warringah Local Environmental Plan.

## Environmental Constraints and Data Source

Type of Constraint and Data Source			
CONSTRAINT	DATA SOURCE	CONDITION	WEIGHTED SCORE
Riparian	Warringah Creek Management Study	Land within riparian zone	12
		Land within riparian buffer	7
		Land outside riparian buffer	0
Significant Vegetation (including wetland communities)	Warringah Natural Area Survey	Land containing a 'threatened community in Australia'	20
		Land containing a 'threatened community in New South Wales'	20
		Land containing a 'rare community in Australia'	10
		Land containing a 'threatened community in Warringah'	7
		Land containing a 'local habitat'	7
Wetland Buffers	Warringah Natural Area Survey	Land containing wetland buffer	7
		Land outside wetland buffer	0
		Land not containing any of these communities	0
Slope	Council GIS contour data	Land containing slopes of 30% (19 degrees) or greater	15
		Land containing slopes between 20% (11 degrees) and 30% (19 degrees)	5
		Land containing slopes of less than 20% (11 degrees)	0
Designated Wildlife Corridor	Warringah Natural Area Survey	Land within mapped Priority 1 wildlife corridor	10
		Land within mapped Priority 2 wildlife corridor	6
		Land within mapped Priority 3 wildlife corridor	4
		Land outside mapped wildlife corridor	0
Coastal Zone	Coastal Protection Act 1979	Land within NSW Coastal Zone	4
	'Costal Zone' map	Land outside NSW Coastal Zone	0
Flooding	Council GIS flooding data	Land within Possible Maximum Flood (PMF) area	12
		Land outside Possible Maximum Flood (PMF) area	0
Acid Sulfate Soils	Warringah Local Environmental	Land containing Class 1 acid sulfate soils	5
	Plan 2000 – supporting mapping	Land containing Class 2 acid sulfate soils	4
		Land containing Class 3 acid sulfate soils	3

Attachment to Report of Warringah Council Meeting held on 13 March 2007

ITEM

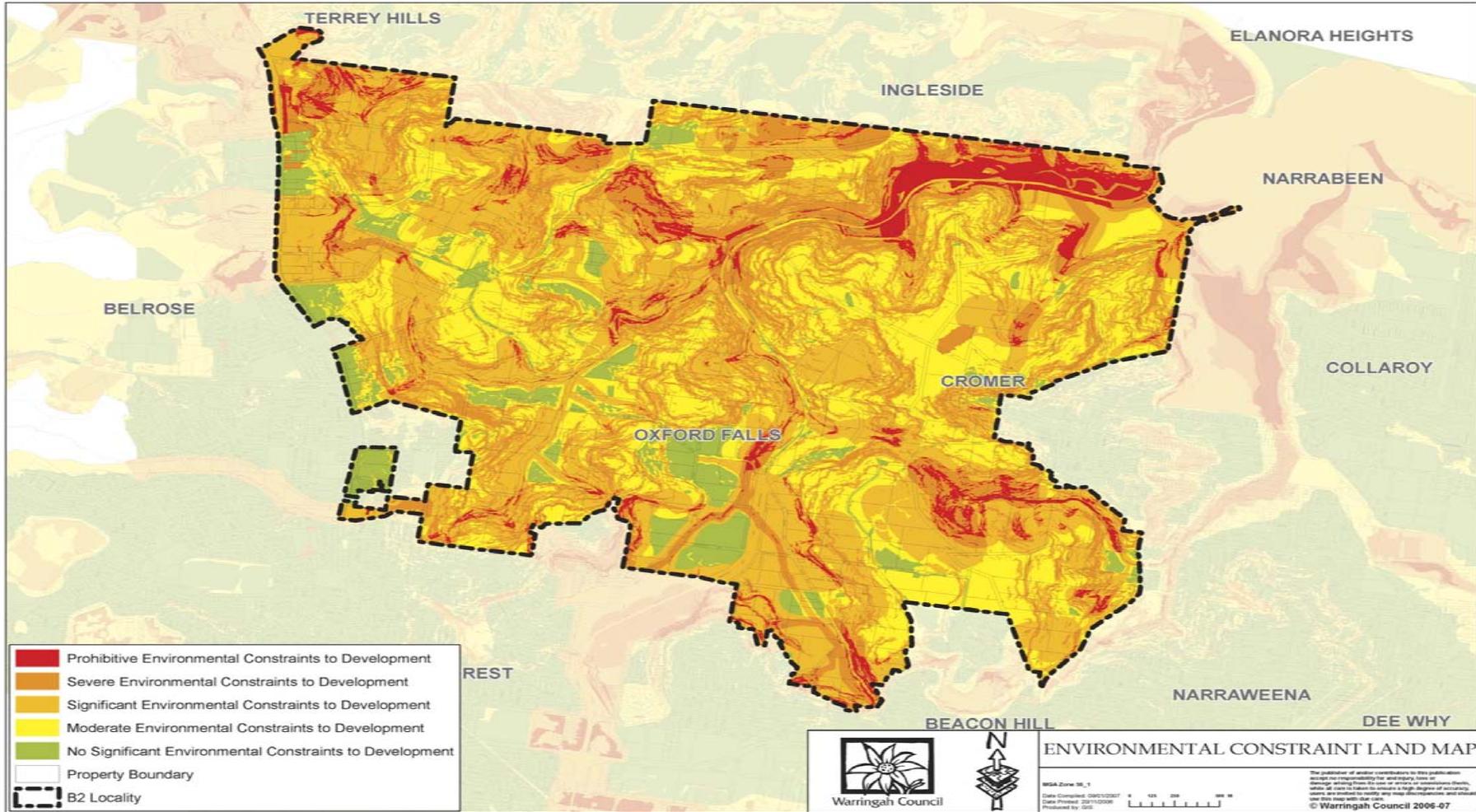
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Environmental Constraints and Data Source

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	Land containing Class 4 acid sulfate soils	2
	Land containing Class 5 acid sulfate soils	1
	Land not containing acid sulfate soils	0

Environmental Constraints / Land Capability Map - Oxford Falls Valley Locality



Attachment to Report of Warringah Council Meeting held on 13 March 2007

ITEM

8.1