

## APPLICATION FOR ENDORSEMENT OF 88B INSTRUMENTS

Disclaimer: The information provided by you on this form will be used by City of Parramatta Council or its agents to process this application. Once collected by Council, the information can be accessed by you in accordance with Council's Access to Information Policy and Privacy Management Plan or in special circumstances, where Commonwealth legislation requires or where you give permission for third party access.

PART 1 - Property & App	licant Details	
1. Property details	unit:	house:
Address	street:	
	suburb:	postcode:
Lot/DP/SP		
Application reference # e.g. DA, CC, SC, CD ,etc	/ /	
2. Applicant details	family name (or company & ABN):	
Full name/company and contact person	full given names:	
, , , , , , , , , , , , , , , , , , ,	OR company contact person:	
Postal address		
	suburb:	postcode:
Contact details	home phone:	mobile:
	office phone	fax:
	email:	date:

#### **PART 2 – Documentation Requirements**

#### 3. Indicate documents submitted for endorsement - Please tick ( $\checkmark$ )

The type of Easement, Restriction or Positive Covenant that is being submitted for endorsement in the s88B Instrument	Applicant (✓)	Officer (√)
Onsite Detention System (OSD)		
Water Sensitive Urban Design (WSUD)		
Flood		
Affordable Rental Housing or Seniors Living		
Garbage Collection and Waste		
Other (Please Specify):		

#### **PART 3 – Fee Requirements**

An application fee is required. Council will contact you for payment prior to lodgement of the application. Refer to Council's website for current Fees and Charges.	_
OFFICE USE ONLY	
Receipt: Date Received: Fee:	
City of Parramatta Council 126 Church Street, Parramatta 2150 PO Box 32, Parramatta 2124	



## APPLICATION FOR ENDORSEMENT OF 88B INSTRUMENTS

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#### Part 4 - Accompanying Documentation Checklist

#### 4. The following documents should accompany the application - Please tick ( $\checkmark$ )

	Description	Notes	Copies Required	Applicant (√)	Officer (√)
1	Deposited plan/strata administration sheet	Electronic Document with NO signatures (or bank stamps) except for the surveyor's sig- nature on the DP admin sheet.	1 x PDF		
2	88B Instrument	Electronic Document with NO signatures (or bank stamps)	1 x PDF		
3	Easement Plan / Strata Plan	Electronic Document with NO signatures (or bank stamps)	1 x PDF		
4	Work-as-executed stormwater plans	Stamped and certified by the registered surveyor	1 x PDF		
5	Form B.10A	OSD WAE survey and certification submission form	1 x PDF		
6	Form attachment B	OSD WAE dimensions	1 x PDF		
7	OSD calculation sheet	Approved versus as-installed drainage design/calculations	1 x PDF		
8	Form B.11	Certificate of Hydraulic Compliance	1 x PDF		
9	Structural Engineer's Certificate	For OSD tank structure, basement pump-out tank structure, OSD basin retaining wall (whichever is applicable).	1 x PDF		

#### PART 5 - Submission and Digital Requirements

Council no longer accepts Applications for Endorsement of 88B Instrument over the counter or by post.

Please forward by email the completed Council Application Form along with the 88B Instrument and any supporting documents as outlined above directly to planning.certificates@cityofparramatta.nsw.gov.au.

The files must be in PDF format and be able to be opened in Council's digital plan system 'Trapeze Desktop'. The Section 88B Instrument must be an original and not contain signatures (or bank stamps)

POT

Each document/plan requires a separate PDF file e.g. application form, works-as-executed plan, Form B.10A, Form Attachment B, etc each in separate files.

- Standard documents are not required to be above 400 dpi resolution whether they are single page or multipage documents and must not exceed 500MB in size.
- Please contact Council's Senior Records Officers on 9806 5000 if your document exceeds 500MB.

Files named as follows: Document Type - Property Address

- Deposited Plan Administration Sheet <insert property address>.pdf
- Section 88B Instrument <insert property address>.pdf
- Work-as-Executed Stormwater Plans <insert property address>.pdf
   Form B.10A <insert property address>.pdf
- Form B.11 <insert property address>.pdf
- Structural Engineer's Certificate <insert property address>.pdf

#### PART 6 - Council Officer Declaration

#### 6. Officer declaration

I declare that this application is, to the best of my knowledge, complete including all accompanying documentation outlined in the checklist above.

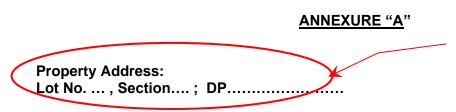
Officer's name

#### Officer's signature

**General Terms** 

**Positive Covenant** 

**Onsite Detention System (OSD)** 



Insert the property Address, Lot and DP number, (Not the parties).

#### **Terms of Positive Covenant**

(i)

- 1. The registered proprietor of the lot(s) hereby burdened will in respect of the system:
  - (a) keep the system clean and free from silt, rubbish and debris.
  - (b) maintain and repair at the sole expense of the registered proprietors the whole of the system so that it functions in a safe and efficient manner.
  - (c) permit the Council or its authorised agents from time to time and upon giving reasonable notice (but at any time and without notice in the case of an emergency) to enter and inspect the land for the compliance with the requirements of this covenant.
  - (d) comply with the terms of any written notice issued by the Council in respect of the requirements of this covenant within the time stated in the notice.
- 2. Pursuant to Section 88F (3) of the Conveyancing Act 1919 the Council shall have the following additional powers:-

The reference should match

(i) the certifier (either

council or private

certifier) who certified

the construction work.

certification Pty Ltd "

Certification no. e.g. "

C000112-2006" and

approval/determination

"e.g. XYZ building

(ii) Construction

(iii) Date when

(dd/mm/yyyy)

Insert

in the event that the registered proprietor fails to comply with the terms of any written notice issued by the Council as set out above the Council or its authorised agents may enter the land with all necessary materials and equipment and carry out any work which the Council in its discretion considers reasonable to comply with the said notice referred to in Part 1 (d) above.

- (ii) the Council may recover from the registered proprietor in a Court of competent jurisdiction:
  - (a) any expense reasonably incurred by it in exercising its powers under subparagraph (i) hereof. Such expense shall include reasonable wages for the Council's employees engaged in effecting the said work, supervising and administering the said work together with costs, reasonably estimated by the Council, for the use of materials, machinery, tools and equipment in conjunction with the said work.
  - (b) legal costs on an indemnity basis for issue of the said notices and recovery of the said costs and expenses together with the costs and expenses of registration of a covenant charge pursuant to Section 88F of the Act or providing any certificate required pursuant to Section 88G of the Act or obtaining any injunction pursuant to Section 88H of the Act.
- 3. This covenant shall bind all persons who are or claim under the registered proprietor(s) as stipulated in Section 88E(5) of the Act.

(Include the following for Privately Certified construction certificate) A copy of this Construction Certificate is held on Council File No. DA ....../.....

Page: 2 of 4

Write the Page number

Insert the	prop	ertv				_		
Address, number ,	Lot a	nd DP	s).	ANN	<u>EXURE "A</u> " C	ontd	Only include Section if a PUMP SYSTEM has been approved	1
$\langle$		erty Addr No , Se		; DP			Council as part of th Development Conse	ne
C						¥		
	4.	<u>Terms of</u>	Pos	itive Covenant for t	<u>he PUMP SYS</u>	<u>TEM</u>		
	4.1	System" i	instal		ncludes pumps	, holding tank, de	in respect to the "Pu livery lines and electri	
		The regis	tered	proprietor will:				
		(a)	Kee	p the pump system	clean and free	of silt, dirt, rubbish	and debris.	
		(b)	in a		anner, and in c	loing so complete	ystem so that it functic the same within the ti ie-Council.	
		(c)		ry out the matters re		, . ,		
		(d)		ke no alterations to the riting to the Council.		n of elements ther	eof without prior cons	ent
	<ul> <li>(e) Permit the Council or its authorised agents from time to time upon giving reasonable notice (but at any time and without notice in the case of an emergency) to enter and inspect the pump system for compliance with the requirements of this Clause.</li> </ul>							
		(f)		nply with the terms c uirements of this Cla			e Council in respect to notice.	the
	4.2.	served in with an ne operation out the we costs and Conveyar	resp ecess of the ork, a d fee ncing	ect of the matters in cary equipment and c e pump system and r and if necessary, rec s) and entry of a c	Clause <b>4.1</b> the carry out any we ecover from the over the amour covenant charg og out any work	Council or its authork required to ensert registered proprie to due by legal pro- le on the land un cunder this Claus	erms of any written not norised agents may en sure the safe and effici- etor(s) the cost of carry oceedings (including le nder Section 88F of se, the Council shall ta as possible	nter ent ing gal the
				naving the power to Parramatta Counc		or modify the ab	ove mentioned Posit	ive
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				tered Proprietor	 S	ignature of the F	Registered Proprietor	
	Addr	ess of the	e Re	gistered Proprietor				
	Nam	e of Witne	ess (	BLOCK LETTERS)	 S	ignature of witne	ess	
							Write the Page	
	Addr	ess & Oc	cupa	tion of Witness		_ /	number here	
			-	(	Page: 3 of 4	$\mathbf{X}$		

ANNEXUF	<u>RE "A</u> " Contd…
Property Address: Lot No , Section ; DP	Address, Lot and DP number , (Not the parties).
	ter the News here been about a
No	te: <u>the Name has been changed</u>
Approved by <b>City of Parramatta Council</b>	r al
Authorised Officer as Delegate of City of P Local Government Act 1993.	arramatta Council Pursuant to Section 378 of
Name of Delegate	. 0.
Position of Delegate	
Name of Witness	Signature of witness
Address of Witness	
·S	
• 6	
	Write the Page number
Pag	ge: 4 of 4

**General Terms** 

**Restriction on the Use of Land** 

**Onsite Detention System (OSD)** 

#### ANNEXURE "A"

Property Address:

Lot No. ... , Section.... ; DP.....

Insert the property Address, Lot and DP number, (Not the parties.

#### Terms of "Restriction On the Use of Land":

The registered proprietor shall not make or permit or suffer the making of any alterations to the onsite stormwater detention system which is constructed on the lot(s) burdened without the prior consent in writing of *City of Parramatta Council*. The expression "on site stormwater detention system "shall include all ancillary gutters, pipes, drains, walls, kerbs, pits, grates, tanks, chambers, basins and surfaces designed to temporarily detain stormwater, as well as all surfaces graded to direct stormwater to the temporary storage. Any on site stormwater detention system constructed on the lot burdened is hereafter referred to as "the system". The on-site stormwater detention system is detailed on the plans approved by .....as (Include the following additional sentence for Privately Certified Construction Certificate only). A copy of this Construction Certificate is held on Council File No. DA...... Name of Authority having the power to release vary or modify the above mentioned Restriction is City of Parramatta Council Insert the DA no. Note: the Name has been changed "e.g. "DA/1234/2006 SIGNED in my presence by ..... Signature of the Registered Proprietor Name of the Registered Proprietor ..... Address of the Registered Proprietor \_\_\_\_\_ Name of Witness (BLOCK LETTERS) Signature of witness Insert ..... (i) the certifier (either council or private ..... certifier) who certified the Address & Occupation of Witness construction work. "e.g. xyz building certification Pty Ltd ". (ii) Construction Certification no. e.g. " c000112-2006" and (iii) Date when approval/determination (dd/mm/yyyy) Write the Page number Page: 2 of 3

## ANNEXURE "A" Contd...

Lot No , Section ; DP Note: <u>the Nam</u>	
Note: <u>the Nam</u>	
	ne has been changed
Approved by City of Parramatta Council	6
Authorised Officer as Delegate of City of Parramatta C Local Government Act 1993.	council Pursuant to Section 378 of
Name of Delegate	0
Position of Delegate	2
Name of Witness Signa	ature of witness
Address of Witness	
	Write the Page number

**General Terms** 

**Positive Covenant** 

Flood Zone

#### CITY OF PARRAMATTA COUNCIL

Standard Terms for Positive Covenant for Flood Zone commonly imposed by instrument under Section 88E(3) of the Conveyancing Act, 1919 (NSW) as amended.

#### Note 1: Use above terms on separate page when creating Positive Covenant - via Forms 13PC<sup>1</sup>

# Note 2: These terms are general guide. Some of the following terms may not be applicable to the application and should be deleted.

#### Annexure ###: Positive Covenant for Flood Zone

Page ### of ###

Property Address: ..... Lot...., (Section, ....,); DP......

- 1. In these terms:
  - (a) **"Flood Zone"** means the area affected by an overland flow path or flood storage area; *[delete as appropriate:* as shown on the flood map of the 1% AEP flood extent issued by City of Parramatta Council dated and attached to this document at Annexure #. OR as shown on the flood map of the 1% AEP flood extent prepared by xxx consultants on xxx date and attached to this document at Annexure #<sup>2</sup>] below the level of RL xxx m AHD shown as "Flood Zone" [delete as appropriate: on the Plan of Subdivision to which this 88B Instrument applies OR in Annexure ## of this form].
  - (b) "Council" means the City of Parramatta Council and includes its servants and authorised agents;
  - (c) **"Owner"** means the registered proprietor for the time being of the lot burdened, their successors and assigns and anyone claiming through the registered proprietor;
  - (d) Where there is more than one Owner, the terms of this covenant and restriction bind the Owner jointly and severally; and
  - (e) The singular includes the plural and vice versa.
- 2. The Owner must:
  - (a) keep the Flood Zone clean and free from obstructions, rubbish and debris;
  - (b) maintain and repair the Flood Zone at the sole expense of the Owner so that it functions (as an overland flow path for the free passage of water) in a safe and efficient manner;
  - (c) permit the Council from time to time and upon giving reasonable notice (but in the case of an emergency, at any time and without notice) to enter and inspect the Flood Zone for compliance with the requirements of this covenant;

<sup>&</sup>lt;sup>1</sup> Similar terms as those listed can be utilised when creating the positive covenant via the 88B process

<sup>&</sup>lt;sup>2</sup> The flood zone map attached as an annexure must be a plan that meets the following requirements and those outlined in Schedule 3 of the <u>Lodgement Rules</u>:

a. The plan shall include the flood extent of the 1% AEP (100 year) flood event consistent with the flood inquiry from Council or the Flood report submitted during the DA. The flood inquiry or page from the flood report cannot be utilised as an annexure.

b. The plan shall be drawn in a manner and to a scale that allows all details and notations to be clearly read and reproduced

c. The plan shall have appropriate dimensions that define the extent of the flooding on the site

d. The plan shall not be in colour

- (d) comply with the terms of any written notice issued by the Council in respect of the requirements of this covenant within the time stated in the notice; and
- (e) maintain appropriate safety fencing and warning signs, if and as required by any development consent.
- 3. Without limiting its powers under Section 88F (3) of the Conveyancing Act 1919 (NSW) (the "Act") the Council shall have the following additional powers:
  - (a) In the event that the Owner fails to comply with any written notice from the Council as set out above, the Council may enter the lot burdened with all the necessary materials and equipment and carry out any work which the Council in its discretion considers reasonable to comply with the notice referred to in clause 2(d) above ("Work");
  - (b) The Council may recover from the Owner in a Court of competent jurisdiction:
    - i. any expense reasonably incurred by it in exercising its powers under sub-paragraph 3(a). Such expense shall include reasonable wages for the Council's employees engaged in effecting the Work, supervising and administering the Work together with costs, reasonably estimated by the Council, for the use of materials, tools and equipment in conjunction with the Work; and
    - ii. legal costs on an indemnity basis for the issue of the notices and recovery of the costs and expenses together with the costs and expenses of registration of a covenant charge pursuant to Section 88F of the Act or providing any certificate required pursuant to Section 88G of the Act or obtaining any injunction pursuant to Section 88H of the Act.
- 4. Without limiting any other right of the Council, the Owner indemnifies and agrees to keep indemnified the Council from and against any claim, loss or damage (including legal costs on a full indemnity basis) which the Council may suffer due to, and/or which arises from, the non-compliance with or departure from these terms by the Owner (whether by act or omission).
- 5. The name of the body empowered to release, vary or modify the restriction or covenant referred to in these terms is the **City of Parramatta Council**.

**General Terms** 

**Restriction on the Use of Land** 

Flood Zone

#### CITY OF PARRAMATTA COUNCIL

Standard Terms for Restriction on the use of Land for Flood Zone commonly imposed by instrument under Section 88E(3) of the Conveyancing Act, 1919 (NSW) as amended.

Note 1: Use the following terms on a separate page as an Annexure when creating Restriction on Use of Land - via Forms  $13RPA^{1}$ 

Note 2: These terms are general guide. Some of the following terms may not be applicable to the application and should be deleted.

Annexure **###:** Restriction on the Use of Land for Flood zone

Page ### of ###

Property Address:..... Lot...., (Section,....,); DP......

- 1. In these terms:
  - (a) **"Flood Zone**" means the area affected by an overland flow path or flood storage area; *[delete as appropriate:* as shown on the flood map of the 1% AEP flood extent issued by City of Parramatta Council dated and attached to this document at Annexure #. OR as shown on the flood map of the 1% AEP flood extent prepared by xxx consultants on xxx date and attached to this document at Annexure #<sup>2</sup>] below the level of RL xxx m AHD shown as "Flood Zone" [delete as appropriate: on the Plan of Subdivision to which this 88B Instrument applies OR in Annexure ## of this form].
  - (b) "Council" means the City of Parramatta Council, and includes its servants and authorised agents;
  - (c) **"Owner"** means the registered proprietor for the time being of the lot burdened, their successors and assigns and anyone claiming through the registered proprietor;
  - (d) Where there is more than one Owner the terms of this covenant and restriction bind the Owner jointly and severally; and
  - (e) The singular includes the plural, and vice versa.
- 2. The Owner must not:

- b. The plan shall be drawn in a manner and to a scale that allows all details and notations to be clearly read and reproduced
- c. The plan shall have appropriate dimensions that define the extent of the flooding on the site
- d. The plan shall not be in colour

<sup>&</sup>lt;sup>1</sup> Similar terms as those listed can be utilised when creating the Restriction on the Use of Land via the 88B process

<sup>&</sup>lt;sup>2</sup> The flood zone map attached as an annexure must be a plan that meets the following requirements and those outlined in Schedule 3 of the <u>Lodgement Rules</u>:

a. The plan shall include the flood extent of the 1% AEP (100 year) flood event consistent with the flood inquiry from Council or the Flood report submitted during the DA. The flood inquiry or page from the flood report cannot be utilised as an annexure.

- (a) erect, construct or place on or within the Flood Zone or permit or suffer to be erected constructed or placed on or within the Flood Zone any building, structure, fence, retaining wall, obstruction of any nature that will impede the free flow of water without the prior consent in writing of the Council;
- (b) alter or permit or suffer any alteration to the surface level of the Flood Zone, including changing surface levels, removing any associated drainage structures and flood protection devices without the prior written approval of Council;
- (c) place or allow construction of any dwelling house or other structure with a finished floor level lower than the levels defined in the #### (provide reference to the undertaken Flood Risk Management report including author, revision and date) and held on Council File DA/###/##### for habitable floors, non-habitable floors and the driveway levels/crest;
- (d) make or permit or suffer the making of any alterations to the section of the building that is designed with an open subfloor, that is suspended on piers/beams;
- (e) make or permit or suffer the replacement or modification or enclosing of the open subfloor except with open-style panels; and
- (f) not place or allow construction of any structure, wall, fill or other items beneath or around the open subfloor
- 3. The name of the body empowered to release, vary or modify the restriction or covenant referred to in these terms is **City of Parramatta Council.**

## Onsite Detention System (OSD) Works Documents to accompany an Endorsement of 88E Application for an OSD System

## B10. OSD WAE SURVEY AND CERTIFICATION SUBMISSION<sup>ii</sup>

The following checklists have been provided to assist designers/surveyors to confirm that all necessary information has been provided to confirm the as built OSD facility complies with the design. The first WAE checklist is a shorter version of the second. The first list (B10A) is to be completed by the stormwater consultant and submitted to Council together with the plan/s and any necessary attachments.

The second more comprehensive checklist (B10B) may be used as an aid to ensure that all relevant information has been provided. It may also be submitted to Council instead of the shorter form if desired.

<sup>&</sup>lt;sup>i</sup> Shorter checklist added in third edition Upper Parramatta River Catchment Trust

**B10A** 

### OSD WAE SURVEY AND CERTIFICATION SUBMISSION<sup>II</sup>

This form is to be completed and submitted to Council/Principal Certifying Authority (PCA) together with the plan/s and any necessary attachments.

PROJECTADDRESS:				
WAE PLAN DETAILS:				
Company Name:				
Name of surveyor:	Date of WAE Plan:	_		
Telephone No.:	Fax No:			
Items submitted: <ul> <li>Signed WAE Plans</li> </ul>		Yes	No	NA
Certificate of Hydraulic Compliant	ance (Form B11)			
Certificate of Structural Compli	ance			
OSD WAE Volume Calculation	S			
COUNCIL REVIEW DETAILS:				
Reviewer's Name:	Date:			

<sup>&</sup>lt;sup>ii</sup> Form number changed to reflect new shorter checklist in third edition Upper Parramatta River Catchment Trust

OSD WAE & CERTIFICATION CHECKLIST			COU AGR	NCIL EES
	Yes	No	Yes	No
1. WAE Plans: (Section 4.3.3)				
Are there any major variations from the approved plans?				
If so, is a Section 96 (EP&A Act ) modification required?				
Is the WAE plan superimposed on an approved design plan in red ink?				
Has a WAE level boxed in red ink been shown at each design level?				
Have WAE dimensions been shown adjacent to design dimensions?				
Do the WAE plans show the following information:				
finished floor levels of dwellings and garages				
levels of overland flow paths				
area and flows from external catchment or reason why its ignoredt				
For the Discharge Control Pit (DCP):				
internal pit dimensions				
diameter and centre line of orifice				
location, dimensions, distance from orifice for fitted screen				
levels of top and invert of pit				
levels of maximum water level and water level at HED				
Internal diameter of outlet pipe				
For each storage:				
• type of storage (roof, above ground, below ground, etc.)				
sufficient levels and dimensions to verify storage volumes				
calculations of actual volume achieved				
level, dimensions and location of overflow between DCP and storage				
<ul> <li>site gradings and areas draining to or bypassing the storage(s)</li> </ul>				
<b>2. Certification:</b> (Section 4.3.4 & 4.3.5)				
Has revised design summary sheet (Form B1) based on WAE been submitted?				
Have upstream flows been ignored, and if so Why?				
Are WAE calculations sufficient to show storage & PSD are satisfactory?				
Does the WAE volume agree with design volume for each storage?				
Does OSD system function correctly?				
Have structural certificates been submitted?				

# B10B. OSD WAE SURVEY AND CERTIFICATION SUBMISSION<sup>III</sup>

This form may to be completed by the stormwater designer and submitted to Council/Principal Certifying Authority (PCA) if Form B10A is not used.

PROJECT ADDRESS:		
DEVELOPER:		
OSD DESIGNER DETAILS:		
Company Name:		
Address:		
Telephone No.:		
Accreditation Organisation:		
Accreditation Reference:		
Name and signature of designer:		
	(Print Name) <b>Date</b> :	
(Signature) Items submitted: **	2	
WAE Plan/s     Contificate of Hydroulis Compliance		Yes / No
<ul> <li>Certificate of Hydraulic Compliance</li> <li>Certificate of Structural Compliance</li> </ul>		Yes / No Yes / No / NA
WAE Survey and Certification Chec	cklist	Yes / No
Attachment A: OSD Volume		Yes / No
Attachment B:OSD WAE Dir COUNCIL REVIEW DETAILS:	nensions, etc.	Yes / No
Council Review Officer's Name:		
Review officer's comments:		
Signature of Review Officer:	Date:	
** The above items are to be submitted in a s unacceptable.	ingle bound form — a floose leaf format	. IS

<sup>&</sup>lt;sup>iii</sup> Form altered to reflect shorter checklist in third edition

## On-site Stormwater Detention Handbook

#### CHECKLIST

ITEM	DESIGNER			NCIL /IEW
	YES	NO	YES	NO
1. The WAE plan/s has/have been prepared				
If YES, see Plan No/Nos prepared byand dated				
1(a) The WAE plan or Attachment B provides the following information about each discharge control pit, DCP (refer Section 4.3.3)				
- internal pit dimensions				
- diameter of fitted orifice plate				
<ul> <li>location, dimensions, distance from orifice for fitted screen</li> </ul>				
<ul> <li>levels of top and invert of pit</li> </ul>				
- Internal diameter of outlet pipe				
1(b) The WAE survey provides the following information about each storage (ref Section 4.3.3)				
<ul> <li>type of storage (roof, above ground, below ground, etc.)</li> </ul>				
<ul> <li>sufficient levels and dimensions to verify storage volumes</li> </ul>				
- calculations of actual volume achieved, see Attachment A				
<ul> <li>level, dimensions and location of overflow structure between</li> <li>DCP and storage</li> </ul>				
1(c) The WAE plans provide the following information on internal drainage (ref Section 4.3.3)				
<ul> <li>pit lid types and surface levels</li> </ul>				
<ul> <li>invert levels and diameters of pipes</li> </ul>				
<ul> <li>location, dimensions and levels of any floodways and/or overland flowpaths</li> </ul>				
<ul> <li>sufficient spot levels to show site gradings and extent of areas draining and not draining to the storage(s)</li> </ul>				
1(d) The WAE plan provides finished floor levels of dwellings and garages (refer Section 4.3.3)				
2. The following drainage-related structural elements have been constructed in accordance with the design (refer Section 4.3.5)				
2(a) Free standing walls (see certificate of structural compliance)				
2(b) Retaining walls (see certificate of structural compliance)				
2(c) Underground storages (see certificate of structural compliance)				

## Final site inspection details: By......Date:.....

ITEM	DESIC	DESIGNER		NCIL IEW
	YES	NO	YES	NO
3(a) Each discharge control pit complies with the following requirements (refer Section 4.3.4). See also Attachment B				
<ul> <li>DCP dimensions and levels comply with design parameters</li> </ul>				
<ul> <li>material, thickness, diameter and sharp edge of fitted orifice plate</li> </ul>				
<ul> <li>the orifice plate is securely fitted</li> </ul>				
<ul> <li>the orifice is screened and the screen is properly fixed,</li> </ul>				
located and able to be easily removed				
<ul> <li>outlet pipe is the correct diameter, level and grade (to ensure there is free discharge through the orifice)</li> </ul>				
- the levels of the top water surface, storage invert and DCP				
are such that the design discharge from the storage is achieved				
<ul> <li>in design cases of 'high early discharge', runoff from sufficient areas of the site is directed to the DCP</li> </ul>				
<ul> <li>the specified flap valve is fitted correctly</li> </ul>				
3(b) Each storage complies with the following requirements (refer Section4.3.4), see also Attachment B				
- the actual volume achieved is adequate				
- the actual top water level will not result in either unintended				
surcharge of the internal drainage system and/or inundation or inadequate freeboard to finished floor levels				
- the base of the storage is well graded and drains to the DCP				
<ul> <li>Spillways and overflow paths are constructed to the correct levels and are free from obstructions</li> </ul>				
3(c) The internal drainage complies with the following requirements (refer Section 4.3.4)				
<ul> <li>site gradings are in accordance with the design expectation (regarding areas to be commanded by each storage)</li> </ul>				
<ul> <li>the internal drainage lines are of a sufficient size, level and grade to convey the flows to the storage</li> </ul>				
<ul> <li>storages cannot be by-passed by overflows from the internal system or by overflows from any surface area designed to drain to the storages</li> </ul>				
<ul> <li>floodways and/or overland flowpaths designed to divert flows around the basin have been properly constructed and will function as designed</li> </ul>				
<ul> <li>general workmanship is adequate to prevent long-term failure of the system</li> </ul>				
3(d) The finished levels of structures (e.g. dwellings, garages) are sufficiently above the as-constructed maximum water surface levels in the storage and flowpaths (refer Section 4.3.4)				
3(e) An emergency spillway or overflow path has been provided so that surcharge will not cause stormwater to enter buildings where significant damage would occur				
3(f) All drainage pits, pipes, storages are in a clean condition and free of building materials,				

#### ATTACHMENT B: OSD WAE DIMENSIONS, ETC.

B.10-7

DESCRIPTION	APPROVED	WAE	CERTIFIER'S COMMENTS
DISCHARGE CONTROL PIT:			
(a) Orifice diameter (mm)			
(b) Orifice plate material			
(c) Pit width (m)			
(d) Pit breadth (m)			
WEIR:			
(a) Reduced level			
(b) Width			
(c) Height (mm)			
DCP invert level			
Access grate dimensions			
STORAGE:			
(a) Top water level			
(b) Storage volume (m <sup>3</sup> )			
(c) Freeboard to F.F.L. (mm)			
(i) Habitable area			
(ii) Garage			
Maximum depth of water (mm)			

CERTIFIER'S NAME:

SIGNATURE: .....

DATE: .....

Form B1 <sup>i</sup> DRAINAGE DESIGN SUMMARY	SUB/DA		
Project:Location:			
Designed by:Company:	Phon	2:	
SITE AREAha *See Section 3.4.3 for dual occu	Ipancy PE.	SIGNED [A] ICY [	N STALLEJA]
Upstream catchment draining through site		ha [AA] =	ha [AA]
See Section 4.1.3 for assessment of external flows. Basic storage volume 470 x [A]	<u></u>	m <sup>3</sup> [B] =	m <sup>3</sup> [B]
Basic discharge = 0.08 x [A]		m³/s [C] =	m³/s [C]
Area of site drained to storage (Must be as much as possible and not be less than 85% of the total site without written Council approval).	=	ha [D] =	ha [D]
[D/ [A] + [ ]/[ ] × 100		% [E] =	% [E]
Storage per ha. of contributing area = [B]/[D]		[F] =	[F]
Enter volume/PSD adjustment chart (Fig 5.1) using [F], and Read new PSD in litres/second/ha (I/s/ha).		l/s/ha [G] =	l/s/ha [G]
Determine PSD =[G] x [D] x	<u> </u>	I/s [H] _ =	I/s [H]
Maximum head to orifice centre	=	m [K] =	m [K]
Weir flow to storage $Q^{Weir} = CL(H^{Weir})^{1.5} \therefore H^{Weir}$	۲ <u> </u>	m [I] =	———— m [l]
Selected orifice diameter: $d = (0.464 \times Q / \sqrt{h})^{0.5} = (0.464 \times [H] / \sqrt{K}$	) <sup>0.5</sup> =	m [J] <sup>5</sup> =	m [J]
Maximum discharge	=	l/s [L] -=	I/s [L]
Head for high early discharge	=	m [M] =	m [M]
High early discharge $\{[L] \times \sqrt{[M]/[K]}\}$ (min 75% of [L])	=	/s [N] =	I/s [N]
Approximate mean discharge = ([L)] + [N]) /2	<u> </u>	l/s [P] =	I/s [P]
Average discharge/ha = [P] / [D] =/		l/s/ha [Q] =	l/s/ha [Q]
Enter volume/P.S.D. adjustment chart (Fig 5.1) using [Q] And read off final storage volume per hectare	=	m <sup>3</sup> /ha[R] =	m³/ha[R]
Determine final SSR = [R] x [D] =x		m <sup>3</sup> [S] =	m <sup>3</sup> [S]
Primary storage proportion = [S] x%		m <sup>3</sup> [T] =	m <sup>3</sup> [T]
Secondary storage proportion = [S] x%		m <sup>3</sup> [U] =	m <sup>3</sup> [U]
Tertiary storage proportion [S] x%	atom Nur	m³ [V] =	m <sup>3</sup> [V]
Check [T] + [U] + [V] = [S]		m <sup>3</sup> =	m <sup>3</sup>

'Revised for third edition to include flow from upstream and revised by pass flows

#### FORM B.11 UPPER PARRAMATTA RIVER CATCHMENT TRUST

#### ON-SITE STORMWATER DETENTION SYSTEM

#### CERTIFICATE OF HYDRAULIC COMPLIANCE

#### BAULKHAM HILLS/BLACKTOWN CITY/HOLROYD CITY/PARRAMATTA CITY COUNCIL

(delete not applicable)

JOB NO:	DA NO:	BA NO:		
PROJECT:				
DESIGNED BY:	CONSTRUCTION			
QUALIFICATIONS:		TELEPHONE:		
1.0 WORKS CONSTRUCT	ED IN ACCORDANCE W	ITH DESIGN. (Delete if not applicable)		
practice in the field of store	mwater drainage design) • works have been const	(accredited professional being competent t have inspected the above on-site stormwater detentio ructed and can be maintained <sup>i</sup> in accordance with th ect.		
Signature:	Date:	_		
2.0 CONSTRUCTION VAR	IATIONS NOT AFFECTIN	IG DESIGN PERFORMANCE. (Delete if not applicable		
	the above mentioned pro	ructed and can be maintained in accordance with th bject, except for the variations listed below which do no actory maintenance.		
Signature:	Date:			
As the copyright owner of	the drainage plans, I he	<u>EOWNERS OF THE PROPERTY</u> reby authorise release of the approved plans/attache in the maintenance of the On-site Stormwater Detentio		
Signature:	Date:			
Name:	(Print)			

<sup>i</sup> Maintainability added for third edition

## a. Structural Engineer's Certificate for the OSD tank structure/ Basement pump-out tank structure/ OSD basin retaining wall etc.

The Structural Certificate should provide statement of Structural stability and soundness of the OSD basin retaining wall, which requires withholding ponding water within the respective OSD basins (see sample wordings below).

## Sample statement in the STRUCTURAL CERTIFICATE FOR OSD BASIN WALLS/ TANK STRUCTURE

..... The depth and bearing of the piers, pads and footings of the OSD tank structure/ OSD basin retaining wall are such that the safe allowable bearing pressure shown in table B 1.101 of the Building Code of Australia (Current edition) will not be exceeded by the loads of the proposed structure.

The preparations and reinforcement in the footings have been assessed and complies with the approved details.

We hereby certify that the completed construction at the above-mentioned project is structurally adequate to support all loads as specified in AS1170.1 & 2 (Loading Code). All works were found to be generally in accordance with the BCA requirements, AS 2870 (Residential Slabs & Footings) and AS 3600 (Concrete Structure) ......