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BEFORE YOU START

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Purpose

- This checklist is intended for use by Water Service Coordinators (WSCs) when submitting Design Applications, and by Sydney Water when reviewing submitted designs. It aims to:
- Ensure all critical information is provided at the time of submission
- Support consistent and complete documentation

Important Notes:

- Any new case application will be returned if checklist information is missing
- Non-compliant applications will be formally rejected
- A comment must be provided in the comment section for all responses marked as No (N), or Not Applicable (N/A).
- The checklist promotes improved design submissions through a "first time right" approach
- It enables Sydney Water to assess the quality of submitted applications

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1. General Des	ign Details								
Address on development consent						Case Nu	mber		
Asset Stream	☐ Wastewate	er 🗆 Potable '	Water □ Recycled V	Vater □ Stormwa	ater	Asset Siz	ze		
						Asset Ty	pe		
Design Stage	☐ Initial desi	•	d Design, version numb submitted: □ no amend		gn				
Capability (Select a	all that apply)	□ W1	□ S1 □ RW	□ LP		□ W2	□ S2	\square SW	□ W3
Asset type	□ Water ma	in/ Recycled	☐ Sewer gravity ma	ain □ Sewer		□ Pres	sure main	☐ Pressure (PRV)	Reduce Valve
	☐ Sewage F	Pump Station [☐ Water Pump Station	□ Reservoir	□ Cl	hemical Do	sing Unit (CDU)	☐ Odou	r Control Unit (OCU)
	☐ Other (sp	ecify)							
Engineering Discip		☐ Civil	☐ Structural	☐ Geotechnical		tormwater & rban Desigı	k Water Sensitiv n (WSUD)	е 🗆	Treatment Process
Standard)		☐ Mechanical	☐ Electrical	☐ Hydraulic	□ In:	strumentati	on & Control		Building Services
List all categories an applicable)	nd sub-categori	es for each discip	pline from Engineering	Competency Stand	dard, li	sting desig	ner, verifier and	independen	t verifier (if
*Note: Individual En be returned	gineer compete	ency level must co	omply with Engineering	g Competency Star	ndard c	otherwise th	ne design review	r cannot be μ	progressed and will
Categories of Desig	n Work:								
Sub-categories of D	esign Work:								

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2. WSC Details

WSC Company WSC name

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3. Design Details

		NOF	₹ & 0	Conce	pt Servicing Plan		
	Sy	Sydney Water use Only					
Item	Requirements	Υ	N	N/A	Comments	Y/N	Comments
Cost	Has the Cost Recovery Agreement provided?	П					
Recovery Agreement	If 'No' the design cannot be progressed	_	_	_			
NOR & Concept Servicing Plan	Does the design adhere to the requirements outlined in the NOR and Concept Servicing Plan, including the point of connection size, etc?						
	If 'No' the design cannot be progressed justification been accepted by Sydney Water.						

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				Des	sign Inputs		
	WSC / Design	er us	se on	ly			Sydney Water use Only
Item	Requirements	Υ	N	N/A	Comments	Y/N	Comments
Design Management (DMP)	Has the design been executed in accordance with the certified Quality Management System (QMS) and the project-specific Design Management Plan (DMP)? Has the design been carried out according to the DMP?						Note: The Case Manager will only check the DMP if it has been requested by Sydney Water.
	You need to complete and have it upon Sydney Water request. For complex asset must be provided						
	Note- Any changes in the DMP and all associated documents to be updated and submitted to Sydney Water. Changes may include, but not limited to change in key personnel, scope of work, project risk/complexity.						
Design changes	Have all changes agreed and documented in the change register (refer to section 6 Design change)						
Design verification	Have all categories and sub-categories of design work been verified? Independent verification undertaken where necessary, including;						
	the preparation of an IV ReportIV certificate						

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				De	esign Inputs		
	WSC / Design	er u	se on	ly			Sydney Water use Only
Item	Requirements	Υ	N	N/A	Comments	Y/N	Comments
esign Inputs	Have all necessary investigations and reports, such as geotechnical studies and searches for existing services, etc, been completed for the design?						
	If 'No' the design cannot be progressed and will be returned						
	"Has anticipated FIFM requirements been addressed in the design?						
	If 'No' the design cannot be progressed and will be returned						
	Note- The FIFM outcome needs to be considered at the design stage.						
	Is the design impacted by future road works or changing ground level?						
	If so, has this been addressed in the design?						
	If 'No' the design cannot be progressed and will be returned						

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				Des	sign Outputs		
	WSC / Design		Sydney Water use Only				
Item	Requirements	Y	N	N/A	Comments	Y/N	Comments
Design Outputs	Has Safety in design been properly addressed and adequately documented?						
	Has Safety in Design report provided? If 'No' the design cannot be progressed and will be returned						
	Have all drawings been prepared to Sydney Water CAD standards and properly drawn and annotated for correct interpretation?						
	If 'No' the design cannot be progressed and will be returned						
	Have all drawings been provided with adequate details for construction?						
	If 'No' the design cannot be progressed and will be returned						
	Has Design report provided? (refer to section 7 Design change)						
	Note , it's not required for assets smaller than DN300 with standard conditions.						
	If 'No' the design cannot be progressed and will be returned						

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	Wa	stew	ater	Catch	ment Analysis Complian	ce	
	WSC / Designe	er use	onl	у			Sydney Water use Only
Item	Requirements	Υ	N	N/A	Comments	Y/N	Comments
Full catchment analysis	Is a wastewater catchment analysis provided? Note- This analysis is mandatory for all						Catchment plan ☐ Flow diagram. ☐ Flow schedule ☐
	deviations and for all designs where the Equivalent Population (EP) exceeds 300 or when the size of the proposed works pipe is DN300 or greater						Mine subsidence affected Pre and post analysis included
	If 'No' to any above the design cannot be progressed and will be returned						
	Has an electronic flow schedule been attached in e-Developer?						Excel file naming convention followed E.g. CN ###### WW V # SFSMAY23
	If 'No' to any above the design cannot be progressed and will be returned						
Catchment plan	Does the design include a catchment plan?						Focus is on future extensions and lead-outs Catchment/service boundary shown
	Note - This is mandatory for all designs that potentially service adjoining areas currently without sewerage.						
	If 'No' the design cannot be progressed and will be returned						
Self-cleansing	If a wastewater catchment analysis is included, does the design meet the requirements for self-cleansing grades and/or slime control?						
	If 'No' and no DFS is provided the design cannot be progressed and will be returned						

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Project and Site Risk assessment WSC / Designer use only Sydney Water use Only										
	WSC / Designe	er us	e or	ıly			Sydney Water use Only			
Item	Requirements	Υ	N	N/A	Comments	Y/N	Comments			
Risk ssessment	Have you carried out a project and site- specific risk assessment?									
	If 'yes', provide details in the comments section.									
	If 'No' the design cannot be progressed and will be returned									
	Has the design considered and addressed the identified risks?									
	If 'No' the design cannot be progressed and will be returned									
Sydney Water and others Critical Assets	Update DBYD and services search information has been obtained and shown on the drawings.									
mpact	Locations of critical underground services have been determined by potholing and shown on the drawings.									
	Known proposed services shown on drawings (Sydney Water and external agencies).									
	Will any critical assets be affected, including trunk mains, critical customers, SWC facilities, hospitals, etc.?									
Vorks impact on Sydney Vater	Are you working on Sydney Water land or easement or need access to;									
	owned land									
	Easement									

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		F	roje	ct and	I Site Risk assessment		
	WSC / Design		Sydney Water use Only				
Item	Requirements	Υ	N	N/A	Comments	Y/N	Comments
	Have you consulted with Sydney Water Property Services?						
	If 'Yes', please select from the options below (select all that apply):						
	☐ Create or extinguish an easement						
	☐ Adjoins SWC property						
	☐ Acquire land for SWC property						
	☐ Licence agreement for access						
	If 'Not consulted with Sydney Water Group Property team the design cannot be progressed and will be returned						
	Note- Evidence of submission of document is required.						

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			Sta	andard	ls Compliance		
	WSC / Designer	r use	only	/			Sydney Water use Only
Item	Requirements	Υ	N	N/A	Comments	Y/N	Comments
Design Compliance	Does the design comply with all relevant Sydney Water Standards?						
	If 'No', have all Deviations from Standards been identified, and submitted for acceptance by SWC? If 'No' the design cannot be progressed						
	and will be returned						
Standard	Have you complied with the current						
Compliance	Engineering Competency Standard (ECS)						
	Safety in Design Procedure						
	Technical Spec – Civil						
	 WSAA Code of Practice (SW editions where available) 						
	Technical Spec – Mechanical						
	Technical Spec – Electrical						
	 Others (specify in comments section) 						
Deem To Comply (DTC) drawings	Have DTC drawings been used						
	If yes, have you read and accepted the DTC terms & condition of use and referenced and correctly applied in the circumstance for the project? If 'Not complying with the DTC terms & conditions then the submission cannot be progressed, and bespoke design is required.						

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	Geotechnica	I Cor	npli	ance (refer to Technical Specificati	ion – Civil)	
	WSC / Design	er us	se o	nly			Sydney Water use Only
Item	Requirements	Υ	N	N/A	Comments	Y/N	Comments
Geotechnical nvestigation	Have Geotechnical investigations and reporting been undertaken in accordance with Sydney Water Technical Specification – Civil?						Geotech report provided
	If 'No' the design cannot be progressed and will be returned						
	Note – Geotechnical Factual Report and Geotechnical Interpretive Report to be produced and submitted.						
	Have the locations of available geotechnical investigations been shown on the drawings? For example, are boreholes indicated on the site plans?						The location has shown on the drawings
	Have you used the results of the geotechnical investigation and incorporated them into the design?						
	If 'No' the design cannot be progressed and will be returned						
	Is the proposed works within following areas?						
	Soft or compressible soil						
	 Mine subsidence area (designated or otherwise) 						
	Potentially unstable and/or steep land						
	filled ground						
	contaminated land						
	Other conditions (specify in comments section)						

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	Geotechnica	l Cor	mplia	ance (refer to Technical Specification – Civ	il)	
	WSC / Design	er us	se on	nly			Sydney Water use Only
Item	Requirements	Υ	N	N/A	Comments	Y/N	Comments
	If yes, have these conditions been addressed in design.						
	If above conditions haven't addressed in the design, the design cannot be progressed and will be returned						
	 Note- the site investigation is required to assess the ground conditions in relation to Sydney Water asset design work, construction and operation 						
	 See Appendix SW2 of WSA02 						
Ground Conditions	Have the ground condition details and on-site verification requirements been indicated on the drawings?						

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Environmental Compliance (All relevant environmental reports must be submitted with the design package) WSC / Designer use only Sydney Water use Only											
	WSC / Designe		Sydney Water use Only								
Item	Requirements	Y	N	N/A	Comments	Y/N	Comments				
Review of Environmental Factors (REF)	Is the review of environmental factors part of Part 5 (Sydney Water)?If it's yes the REF must be submitted.										
	Has the REF outcome been addressed in the design?										
	Is review of Environmental factors is Part 4 (Council) and the outcome been addressed in design?										
Contamination	Is the proposed work in Contaminated land?										
	If yes, has a contamination report been provided?										
	Is full remediation occurring										
	If No, detail changes in design addressing that risk If 'No' the design cannot be progressed and will be returned										
Heritage Report	Is the proposed work will impact heritage asset?										
	If 'yes', has heritage report provided?										
Aboriginal Report	Is Aboriginal Land report required?										
Flora/Fauna Report	Is Flora / Fauna report required?										
Other	Other										

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Associated design impacts to proposal									
WSC / Designer use only							Sydney Water use Only		
Item	Requirements	Y	N	N/A	Comments	Y/N	Comments		
Building Plan Approval (Out of Scope)	Will this design require and associated BPA application to address BPA requirements?								
	BPA requirement details to be incorporated on the design								
	Has BPA application been submitted? If 'Yes', provide the case number in comment section.								
	Note – Design many need to be finalised prior to BPA application								

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4. Designer Details / Competency

Geotechnical

Design Manager / WSC certifying o	fficer Name:					
Geotechnical			Name of Engineer:			
ECS forms provided	YES □	NO □	C.V's provided	YES []	NO 🗆
	YES 🗆	NO 🗆	CPENG	YES 🗆	NO	□ NA □
Geotechnical			Name of Engineer:			
ECS forms provided	YES 🗆	NO □	C.V's provided	YES □]	NO 🗆
Competency demonstrated	YES 🗆	NO 🗆	CPENG	YES □	NO □	NA □
Geotechnical			Name of Engineer:			
ECS forms provided	YES □	NO 🗆	C.V's provided	YES 🗆		NO 🗆
Competency demonstrated	YES 🗆		CPENG	YES □	NO 🗆	NA 🗆
Civil			,			
Design Manager / WSC certifying o	fficer Name:					
Civil			Name of Engineer:			
ECS forms provided	YES 🗆	NO 🗆	C.V's provided	YES 🗆		NO 🗆
			CPENG	YES □	NO 🗆	NA □
Civil			Name of Engineer:			
ECS forms provided	YES 🗆	NO 🗆	C.V's provided	YES 🗆		NO 🗆
Competency demonstrated	YES 🗆		CPENG	YES 🗆	NO 🗆	NA 🗆
Civil			Name of Engineer:			1
ECS forms provided	VEC E	NO E	C.V's provided	YES 🗆		NO □
EGS forms provided	YES 🗆	NO 🗆	<u> </u>			
competency demonstrated	YES D		CPENG	YES □	NO □	NA □

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Structural Engineering

Design Manager / WSC certifying	officer Name:					
Structural			Name of Engineer:			
ECS forms provided	YES 🗆	NO 🗆	C.V's provided	YES 🗆		NO □
Competency demonstrated	YES 🗆	NO 🗆	CPENG	YES 🗆	NO 🗆	NA 🗆
Structural			Name of Engineer:			
ECS forms provided	YES 🗆	NO 🗆	C.V's provided	YES 🗆		NO □
Competency demonstrated	YES 🗆	NO 🗆	CPENG If yes, provide copy	YES 🗆	NO □	NA 🗆
Structural			Name of Engineer:			
ECS forms provided	YES 🗆	NO 🗆	C.V's provided	YES 🗆		NO 🗆
Competency demonstrated	YES 🗆		CPENG If yes, provide copy	YES 🗆	NO □	NA 🗆
Other Engineering Discipline -	as per ECS					
Design Manager / WSC certifying	officer Name:					
			Name of Engineer:			
ECS forms provided	YES □	NO □	C.V's provided	YES □		NO □
Competency demonstrated	YES 🗆	NO 🗆	CPENG	YES 🗆	NO 🗆	NA 🗆
			Name of Engineer:			
ECS forms provided	YES □	NO □	C.V's provided	YES 🗆		NO 🗆
Competency demonstrated	YES 🗆	NO 🗆	CPENG	YES □	NO □	NA □
			Name of Engineer:			
ECS forms provided	YES 🗆	NO 🗆	C.V's provided	YES 🗆		NO 🗆
Competency demonstrated	YES 🗆	NO 🗆	CPENG	YES □	NO □	NA 🗆

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5. WSC/Design Certification by Design Manager

I certify that:

The overall design as being fit for purpose, Design assets for lowest life cycle cost to achieve desired level of service and acceptable risk meets objectives and complies Sydney Water's requirements on behalf of the organisation engaged to undertake the design.

If you have not checked the design fit for purpose the design cannot be progressed and will be returned.

Sydney Water may review the submitted Design and provide comment for consideration Sydney Water does not verify the Design. Sydney Water review of the submitted Design including any supporting documentation does not relieve the Designer of their responsibilities. Responsibilities for the Design remains with the Designer.

WSC Company:	
Design Manager / WSC certifier officer Name:	WSC Name :
Signature:	Signature:
Date:	Date:

NOTE - you will be unable to sign this document until you save it and reopen in your PDF reader

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6. Design changes and variation register

Design change	Input review	Output review	Verification	Sydney Water release
Designer Name				Date:
Design Manager Name				Date:
WSC certifying other				Date:

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7. Design Report

The Designer is required to prepare a comprehensive Design Report, which must include, at a minimum, the following elements:

- Project objectives, including functional performance criteria and underlying design assumptions
- Design basis, with references to applicable standards and specifications
- Add Design calculations refer C10.1.4 of the Civil Spec
- Recommended scope of work
- Key observations and any emergent scope requiring consideration
- Design review comment register, documenting all comments received and the designer's responses. Any unresolved actions must be clearly communicated to Sydney Water (SWC)
- Safety in Design review documentation, including the safety register. Outcomes from these reviews must be submitted to SWC and/or relevant stakeholders to facilitate closure of items managed through downstream processes such as detailed design, procurement, construction, or commissioning
- Summary of construction, commissioning, and proving methodologies, highlighting any impacts on site operations
- Details of approved design deviations
- Options analysis, including lifecycle costing. This section should outline all alternatives considered, the rationale for acceptance or rejection, and any cost savings identified during the design process
- Identification of any specialist contractor or independent verifier required to attend site during construction for specific inspections

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8. Standards & Specifications

Technical Specification - Civil - (sydneywater.com.au)

Technical specification – mechanical (sydneywater.com.au)

Technical specification – electrical (sydneywater.com.au)

Technical specification – electrical) (sydneywater.com.au)

Engineering competency standard (sydneywater.com.au)

Appendix A Evidence of competency form.docx

Appendix B Independent Verification Certificate (58.1KB, DOCX)

WSAA Codes, Manuals, Standards, Specifications (Sydney Water Editions as appropriate)

Water Service Association of Australia

WSAA Shop: Sydney Water Codes

- WSA 01 Polyethylene Pipeline Code
- WSA 02- Sewerage Code of Australia (Sydney Water edition)
- WSA 03 Water Supply Code of Australia (Sydney Water edition)
- WSA 04 Sewage Pumping Station Code of Australia
- WSA 06 Vacuum Sewerage Code of Australia
- WSA 07 Pressure Sewerage Code of Australia
- WSA 201 Manual for Selection and Application of Protective Coatings

Sydney Water Supplement to Pressure Sewerage Code of Australia WSA-07 2007

Sydney Water supplement to industry standard for submersible pumps for sewage pumping stations WSA 101-2008

Deviation from standards procedure D0001738 (sydneywater.com.au)

Deviation from Standard Procedure - Attachments (forms)

Technical guidelines - Building over and adjacent to pipe assets

RSIB - Sydney Water's technical guidelines Reticulation Sewers in Basements

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Minor Works - Sydney Water's Technical Requirements and Work Instructions for Minor Works (sewer) **Sydney Water Special Engineering Assessment Procedure** Sydney Water Safety in Design Procedure Reticulation Sewers in Basements - Technical Guideline **EPS500 – Engineering Product Specification for Standard Pipes and Fittings for Networks EPS210 – Welded Steel Pipes and Fittings** Water System Planning guideline Standards and specifications (sydneywater.com.au) Building plan approvals (sydneywater.com.au) Building over or next to assets (sydneywater.com.au)

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