

# Headworks Delivery Manual

A guide to delivering  
headworks infrastructure

Version 2.1

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## Foreword

Welcome to Water Corporation's Headworks Delivery Manual. The Corporation is the principal supplier of water, wastewater and drainage services to homes and businesses in Western Australia. The Corporation works with the land development industry to ensure each new lot is provided with the appropriate water, wastewater and drainage services as efficiently and at the lowest total cost as possible.

This manual is designed to guide Developers and their appointed consultants through the process of delivering headworks infrastructure required to accommodate connections to reticulation assets in accordance with the Corporation's conceptual planning. Headworks infrastructure includes wastewater pumping stations and pressure mains, main sewers larger than 300mm, water distribution mains larger than 250mm and main drains. Advice on delivering reticulation assets is covered in the Corporation's [Developers Manual](#).

Although not specifically addressed in this manual, the subdivision clearance process is referred to at points where key dependencies exist. It is one of the objectives of this manual to have these dependencies better understood, and therefore better integrated and managed within the Headworks Delivery process.

This manual is supported by the Corporation's website and is continually reviewed and updated. It aims to demonstrate the Corporation's commitment to providing a high-quality service to those involved in the land development industry.

The information is designed to be easily read and understood. There are other technical documents that support this manual and are referenced where relevant.

For further information or feedback on this manual and any questions related to headworks delivery, please direct your enquiry to: [DSB.HDT@watercorporation.com.au](mailto:DSB.HDT@watercorporation.com.au) or phone 9420 2099.

## Glossary of Terms

In this manual the following words and expressions have the following meanings.

<b>Asset Requirements Baseline</b>	Is a signed document that includes the agreed scheme and user requirements for a capital project
<b>Asset Delivery Representative</b>	Acts on behalf of the Corporation to ensure headworks infrastructure satisfies operational requirements
<b>Capital Investment Program</b>	The Corporation's program of identified capital works to be delivered to provide sustainable water services and optimal business benefits at tolerable levels of risk
<b>Catchment Plan</b>	A plan identifying the overall serviceable catchment of the headworks infrastructure
<b>Contract</b>	The agreement between the Developer and the Contractor for the execution of the works
<b>Contractor</b>	The organisation engaged by the Developer to deliver the works
<b>Construction Contract</b>	Is the contract between Developer and the Contractor for the construction of the works and to ensure the works meet all Australian design and operational standards and applicable laws
<b>Design Manager</b>	Acts on behalf of the Corporation to manage the engineering component for the delivery of the headworks infrastructure
<b>Design Standard</b>	Water Corporation's document that specifies the design requirements of any category of asset
<b>Developer</b>	The person or organisation that has entered into an agreement with Water Corporation to provide water or wastewater infrastructure (The Principal)

<b>Developer Constructed Works Agreement (DCWA)</b>	The formal legal agreement between the Corporation and Developer outlining the obligations, milestones and requirements agreed to being delivered as part of the proposed works
<b>Developer's Consultant</b>	The engineer appointed by the Developer to undertake the design, construction superintendence and/or project management of headwork infrastructure and is listed as a ' <u>Prequalified Developer's Consultant</u> ' or is part of the Minor Works Design Panel
<b>External Approvals Tracking Spreadsheet</b>	The spreadsheet generated by the Corporation for the Developer's consultant to document and/or add any required External Approvals for the project
<b>Engineering Summary Report and Detailed Design</b>	Two documents produced concurrently for which the construction of the works is based
<b>Fee Proposal</b>	A standard template completed by the Developer's consultant and submitted to the Corporation for acceptance of consultant fees to produce a Scoping Report
<b>Financial Securities</b>	A security guarantee required to cover the costs incurred by the Corporation in the event the Developer defaults on its obligations within the DCWA
<b>Headworks Delivery Advisor</b>	The Corporation's representative who acts as the point of contact between the Developer and Water Corporation throughout the project
<b>Headworks Delivery Process</b>	Is the process that shall be followed to deliver headworks infrastructure
<b>Headworks Infrastructure</b>	Refers to distribution mains, trunk mains, water booster stations, water tanks, wastewater pump stations, main sewers, main drains etc.

<b>Headworks Relocation Agreement</b>	The formal agreement between the Corporation and Developer outlining obligations, milestones and requirements agreed to being delivered as part of the proposed relocation works.
<b>Prerequisites to Works</b>	The procedure required to address the Corporation's statutory requirements under the <i>Water Services Act, 2012</i> for general and major works as set out in the External Approvals Manual
<b>Pressure Main Route Plan</b>	A plan identifying the route of the sewer pressure main or the water distribution main
<b>Project Close Out Report</b>	The report containing final information relating to the project, including total project costs and as-constructed drawings
<b>Project Manager (Water Corporation)</b>	Is to act on behalf of the Corporation to oversee the undertaking and construction of the works and may direct a change or variation to the works if, in the Corporation's opinion, the works do not comply with the detailed design and/or Design Standards
<b>Project Schedule</b>	The Gantt chart provided as part of the Scoping Report Brief that identifies all key milestones that are required to be met
<b>Recoup</b>	A payment from the Corporation to the Developer, as per the terms of the Developer's Constructed Works Agreement, for the total project costs as agreed to in the Project Close Out Report
<b>Reticulation</b>	The pipelines that connect private works to headworks infrastructure, and are constructed to provide a water supply or wastewater service
<b>Review Response Table</b>	A document used to track document review comments between the Corporation and the Developer's consultant
<b>Scoping Report</b>	A report that identifies the key issues, constraints and/or alternatives that are to be considered to define the scope of works

<b>Shall</b>	A mandatory requirement
<b>Should</b>	A requirement to be adopted unless circumstances justify a variation
<b>Site Plan</b>	A plan identifying the site layout of the headworks infrastructure
<b>Standard Infrastructure Contributions</b>	Contributions payable by anyone increasing the potential demand on the Corporation's existing water, wastewater, and drainage infrastructure
<b>Temporary Works</b>	Unfunded works that do not comply with planned Corporation scheme requirements
<b>Water Corporation</b>	The statutory body corporate established under Section 4 of the <i>Water Corporation Act 1995</i> .
<b>Works</b>	An activity which results in the acquisition of headworks infrastructure

# 1. Introduction

This manual shall be read if headworks infrastructure needs be constructed to ensure that services can be provided to meet the servicing and clearance conditions of your subdivision or, if headwork infrastructure needs to be relocated to ensure that the asset remains adequately protected. It provides knowledge to land developers, engineers, planners, state government agencies and local authorities on how to deliver or relocate headworks infrastructure.

## 1.1. Delivering new Headworks infrastructure

Headworks infrastructure is planned through the Corporation's 5-year Capital Investment Program (CIP) which provides developers the ability to service their subdivisions. Projects within the 5-year CIP can be identified through SLIP with Water Corporations CIP Planned Assets layers turned on. Alternatively, at the initial feasibility stage, projects can be identified by contacting the Corporation through the Servicing Advice form.

If there is enough certainty of orderly growth, the infrastructure can be planned and delivered by the Corporation's CIP; however, the timing of development is normally controlled by the Developer. As a result, the most common delivery method is when the project is inside the Corporation's 5-year CIP and the construction is funded by the Developer and recouped by the Corporation.

If there is enough certainty of orderly growth from multiple developers, the infrastructure can be planned and delivered by the Corporation through its CIP. Enough certainty would be demonstrated by multiple structure plans and subdivision application approvals reliant on the headworks infrastructure. In this scenario, it is the Corporation's responsibility to deliver the required headworks infrastructure, however the timing of development is normally controlled by the Developer. As a result, there are various delivery methods for headworks infrastructure, all of which are outlined in section 1.2 of this Manual.

Section 2 of this manual outlines the overall process for delivering new Headworks' infrastructure

## 1.2. 5-year Capital Investment Program (CIP) delivery methods

### 1.2.1. Project within the Corporation's 5-year CIP

The situation arises where it is both practical and efficient for developers to construct headworks infrastructure on behalf of the Corporation. A project must be within the Corporation's 5-year CIP for this delivery method.

For projects within the 5-year CIP, the Developer shall initially fund the project and be recouped by the Corporation for the cost of the works. The recoup occurs as per the terms of the Developer Constructed Works Agreement (DCWA), which is usually triggered by the acceptance of the Project Close Out report.

### 1.2.2. Reconsideration to bring the project within the Corporation's 5-year CIP

This delivery method is the same as above however the project must first be reconsidered to be brought inside the 5-year CIP. This is achieved through a request from the Developer for reconsideration of the timing of the project which will justify inclusion in the 5-year CIP.

### 1.2.3. Project outside the Corporation's 5-year CIP

This delivery method occurs when a project is confirmed to be delivered outside the current 5-year CIP. If the Developer still wishes to proceed, they can choose to fund the project with no recoup from the Corporation. The delivery of the project still follows the process outlined in section 2 of this manual.

### 1.2.4. Project Classified as Temporary Works

Headworks Infrastructure classed as Temporary Works shall be developer funded with no recoup provided from the Corporation. This is because the subdivision is ahead of orderly development, or the works are not in accordance with the Corporation's long-term scheme planning. The delivery of the project still follows the process outlined in section 2 of this manual.

## 1.3. Relocating existing Headworks infrastructure

Sometimes the situation arises that development works (subdivision, building, roadworks, etc.) will unacceptably impact existing Corporation Headworks infrastructure. In this situation, it is the Developer's responsibility to consider what options are available to reduce the impact to an acceptable level and avoid damage.

The Developer may be able to relocate, raise, or reconfigure the existing infrastructure to offset the impacts of their development works. In this scenario, the Developer is responsible for the design and delivery of the works as well as all costs associated with relocating the infrastructure including costs associated with decommissioning existing assets and any required isolations.

Section 3 of this manual outlines the process for relocating existing Headworks infrastructure.

## 1.4. Roles and responsibilities

It is important that everybody involved in delivering Headworks Infrastructure are aware of their role and responsibilities in the process. Description of these roles are included in the glossary of terms; however, the following three roles are integral to the delivery of the works throughout the entire process:

**Developer** – is the Principal of the project/contracted works

The Developer is the person or organisation applying for a water and/or wastewater service. They are the party that enters into an agreement to deliver the works and will need to:

- appoint a Consultant to carry out the design, approvals, and superintendence of the works in accordance with this manual, design standards and any other technical manuals
- provide a safe site for the works to be constructed and inspected
- pay all associated costs, fees, and charges

**Developer's Consultant** – is a Prequalified engineer appointed by the Developer to undertake the different aspects of delivering headworks infrastructure in accordance with this manual. They have three main responsibilities:

- Scoping and Detailed Design - They are responsible for the Scoping activities pre-design and gaining all necessary external approvals in accordance with the Design Standards, External Approvals Manual, and Australian Standards. They are also responsible for the Detailed Design itself (other than when the Corporation undertakes Detailed Design) of the works.

- Superintendence - The Superintendent is responsible for administering the contract between the Developer and the Contractor for the construction of the works and to ensure that the Contractor completes the works to the accepted design in compliance with Design Standards and relevant Australian standards. This includes gathering, auditing, validating, and submitting all documents and undertaking audits/inspections to confirm/demonstrate compliance during construction of the works and providing the as-constructed information. The Superintendents Representative is the Superintendents designated representative and responsible for ensuring the completion of the works by the Contractor to the accepted design and approved specifications. The Superintendents Representative represents the Superintendent and the Developer in all communications with Water Corporation and must be employed by the Superintendent.
- Project Management – Usually a Developer would engage their consultant to manage the overall project as there are many aspects outside of the Water Corporation scope of works to oversee and deliver.

**Headworks Delivery Advisor (Water Corporation)** – is responsible for preparing and providing required documents (such as the Scoping Report brief) to the Developer and acts as the point of contact between the Developer and the Corporation throughout the project.

## 1.5. Design standards and technical manuals

This manual should be read in conjunction with the appropriate Design Standard and/or Technical Manual for the type of infrastructure being delivered. The Developer's consultant should be familiar with the following Design Standards and Technical Manuals:

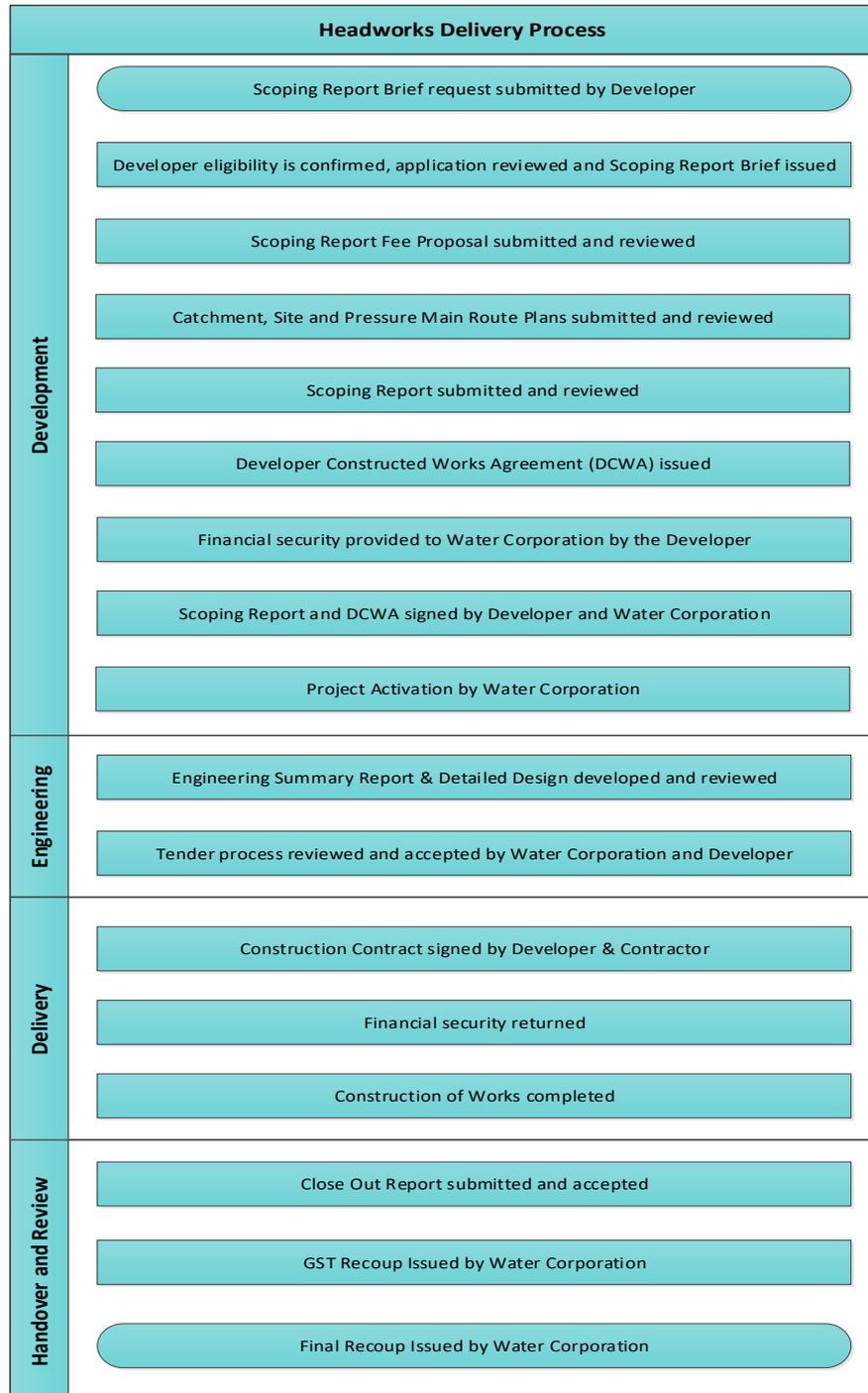
- Design Standard 50 – Design and construction requirements for gravity sewers DN150 to DN600
- Design Standard 51 – Design Standard of WWPS and Pressure Mains 4 to 90L/s
- Design Standard 60 – Water Supply Distribution Standard
- Design Standard 61 – Water Supply Distribution Tanks
- Design Standard 66 – Urban Main Drainage Standard
- Design Standard 80 – WCX drawing standard
- Design Standard 20 – Design Process for Electrical Works
- Design Standard 29 – Arc Flash Hazard Assessment of Switchgear Assemblies
- Design Standard 30 – Mechanical Design Process
- External Approvals Manual – Prerequisites to Works
- Earth Potential Rise Manual – Protection of pipelines from AC interference
- Safety in Design (mandatory)

All Design Standards, specifications and standard drawings are available on the Corporation's website in the [suppliers and contractors](#) section.

## 2. Delivering new Headworks Infrastructure

### 2.1. Process

The process to deliver headworks infrastructure is broadly separated into four phases. These are shown in the below diagram and their requirements are described in more detail throughout this section of the manual.



## 2.2. Requirement to initiate process

Prior to engaging with Headworks Delivery, it is expected that the Developer will have previously engaged with the Corporation to determine the servicing feasibility of the proposed site and confirm if headworks infrastructure is required.

The Corporation's Land Planning section provides advice to Local Government Authorities and the Western Australian Planning Commission in response to town planning scheme amendments (rezoning), structure plans and water management documents.

Developers should obtain this advice by contacting the Corporation's Land Planning section prior to engaging with the Headworks Delivery team to understand the headworks infrastructure requirements and to obtain the Corporation's capital project number.

The Land Planning section can be contacted through the online Servicing Advice form.

## 2.3. Scoping Report Brief

### 2.3.1. Initial Request

Once initial engagement with the Corporation's Land Planning section determines that headworks infrastructure is required, a Scoping Report Brief request should be made through the Corporation's [online portal](#). The request must include, but not be limited to, the following key pieces of information:

- Approved Local Structure Plan (Local Government)
- Approved Water Management Document including 1 in 100 year (1% AEP) flood study
- Infrastructure Concept Plan
- Subdivision/staging plan
- Timeline/Gantt chart of lot development
- Known constraints (correspondence with the local government authority and other utility providers, specific environmental and/or heritage issues, etc.)
- Developer's contact details including ABN

**NOTE:** The above information is the minimum requirements due to holding capital funds to deliver these projects. If a development is not at the stage of progressing, the capital funding may be allocated to other projects that are ready to proceed.

This information is also required to enable the preliminary design of headworks infrastructure. The information allows for an acceptable Scoping Report to be produced, on which the Engineering Summary Report and Detailed Design is based.

Time should be allowed for an infrastructure planning review/assessment. Although the Corporation will endeavour to provide a timeframe, this will be indicative only. In general terms, the better the quality and certainty of the information provided as part of the Scoping Report Brief request, the less the likelihood of delays.

Should the above information not be provided, the Corporation will not process the scoping report brief and will redirect the request to the Corporation's [Servicing Advice](#) form.

### **2.3.2. Headworks Delivery Team Review**

The Headworks Delivery team will review the information provided by the Developer to ensure that it satisfies the Corporation's planning requirements.

A review of the Developer's financial eligibility to deliver headworks infrastructure is also undertaken at this stage and will be confirmed in the Corporation's response.

The Corporation will review the status of existing infrastructure planning. The review aims to ensure the planning assumptions are not altered by the information provided by the Developer and will verify what land use planning information is available for the area/catchment from the Department of Planning, Lands & Heritage and/or the Western Australian Local Government Association (WALGA) etc.

The review will develop considerations and inputs for inclusion into the Scoping Report Brief such as:

- Long-term planning (e.g. 30 years and beyond):
- Establishing a staging plan that progressively implements the long-term infrastructure
- All aspects of asset management on a whole-of-asset-life basis
- Establishing viable options and determining the best long-term option to satisfy sustainability objectives
- Identifying and planning for future trends and community expectations that is likely to alter the existing environment (e.g., changes in environmental regulations, operating licence standards, government policy land use density)

### **2.3.3. Scoping Report Brief**

The Scoping Report Brief (SRB) shall provide information to the Developer's consultant to submit a fee proposal to the Corporation.

The SRB is first prepared by the Corporation and sent to the Developer for them to arrange quotes from engineering consultants.

The External Approvals Tracking Spreadsheet (EATS) and constraints mapping is a large file and will be provided via a 'OneDrive' link. This document requires some lead time and will be provided to the Developer when available.

The SRB will include project specific information as well as links to all relevant templates for the Developer's consultant to utilise when preparing the scoping report fee proposal and Scoping Report.

### **2.3.4. Acceptance of a Scoping Report Fee Proposal**

After receiving the SRB, the Developer's consultant shall lodge a scoping report fee proposal to the Corporation.

The fee proposal will be reviewed based on the current market benchmarks. Fee proposals are accepted within this established margin to ensure minimum requirements are met and unnecessary work is avoided. If the fee proposal is not within the established margins, the Developer's consultant will be required to provide an amended fee proposal within those margins prior to acceptance; or the Corporation may request the Developer to seek fee proposals from other consultants until the fee is acceptable to the Corporation.

Upon acceptance of the fee proposal, the Corporation will:

- Advise the Developer of the acceptance of the fee proposal
- Request the Developer submits a catchment plan, site plan and pressure main route for in-principle agreement prior to the Scoping Report being prepared.

The Corporation is committed to the timely delivery of headworks infrastructure. To meet the Developer's clearance expectations, timeframes outlined in this manual, the project schedule, and the Developer Constructed Works Agreement (DCWA) will be recorded and monitored throughout the duration of the project.

Whilst the project delivery is a collaborative effort, the Developer remains responsible for meeting all deliverables as identified in the project schedule.

Failure to achieve these deliverables prior to the signing of the DCWA will result in ineligibility for early clearances, project funding being deferred or removed from the CIP, as well as impacting recoup terms and the timing of clearance of lots. Where there are multiple dependencies on the asset being delivered, the project may be transferred to another party.

## **2.4. Scoping Report**

The Scoping Report shall identify the key issues, constraints or options that are to be considered to define the scope of works. This allows the project to move into the design and construction phase with confirmation of the works that are to be delivered by the Developer.

After the fee proposal is accepted, it is expected that submission of a catchment plan, site plan and pressure main route plan will take place within 30 working days. Once these plans have been confirmed, the submission of the Scoping Report document will take place within 60 working days.

### **2.4.1. Development of Catchment, Site and Pressure Main Route Plans.**

Prior to the submission of the Scoping Report document, the Developer's consultant shall submit the catchment, site, and pressure main route plan via email to the project's Headworks Delivery Advisor.

The Corporation will review these documents within 30 working days to ensure compliance with requirements outlined in the [Scoping Report Template](#). Should any requirements not be met, for the Developer's consultant will be required to amend any items in order to proceed with the preparation of the Scoping Report document.

Typically, at the structure plan stage, the Corporation is consulted regarding the location and layout of the site plan for in-principle acceptance. This is required prior to the Developer's consultant formally engaging with the Local Government Authority/landowner for the final site location and configuration.

Once these plans are accepted; the Developer's consultant can prepare and submit the Scoping Report document for review by the Corporation.

### **2.4.2. Development of Scoping Report.**

The Developer's consultant will develop the scoping report document from the provided template within 90 working days of the fee proposal acceptance. The template includes guidance notes in blue text that identifies the key information required.

The Scoping Report cannot be accepted if any of the following items remain unresolved:

- Geotechnical investigations
- Land tenure (for proposed assets outside of land controlled by the Developer, written approval is required from the affected landowner)
- Flood study (the 100-year flood level)
- Servicing of the site (i.e. confirmation of power, provision of water, communication availability)
- External approvals, as per External Approvals Tracking Spreadsheet (EATS)
- WAPC conditional approval for the proposed subdivision

Typically, these items may take time to resolve, so early engagement to address these items is advised.

The Corporation will review the submitted Scoping Report and should adjustments be required, comments will be provided through the Review Response Table (RRT) within 30 working days.

Once the report is acceptable, the Corporation will advise the Developer and issue the DCWA.

The Developer will sign both the Scoping Report and the DCWA and provide the required financial security within 30 working days. These documents are all to be submitted at the same time to the Corporation.

Once the required documents have been provided, the Corporation will co-sign and return to the Developer for their records.

If the Scoping Report, DCWA and financial security are not accepted within the timeframes identified in the project schedule, the Corporation reserves the right to withdraw the offer.

## **2.5. Agreement**

### **2.5.1. Developer Constructed Works Agreement and Financial Security**

The Corporation will countersign the original DCWA document and return a copy to the Developer for their records.

Under the terms of the DCWA, the Developer is required to provide a financial security to the Corporation. Without the financial security being received, the DCWA will not be accepted, and any associated clearances and recoup may be delayed.

The financial security will cover the costs incurred by the Corporation during the design and construction of the works should the Developer elect to not to deliver the project or defaults under the terms of the DCWA. The financial security will be returned to the Developer after the award of the Construction Contract, or as otherwise agreed to within the terms of the DCWA.

Once the agreement is signed by both parties, any variation to the terms or agreement or schedule shall be discussed with the Corporation.

## **2.6. Project Activation**

Once a DCWA has been executed, the Corporation will activate the project in its Capital investment program and assign a Project Team comprising of: Project Manager, Design Manager and Asset Delivery Representative to assist the Developer's consultant through the next phases of the project.

Project Activation is the milestone that sees the Project Manager become the first point of contact at the Corporation.

## **2.7. Engineering Summary Report and Detailed Design**

Following the project activation, an Engineering Summary Report (ESR) and Detailed Design (DD) may be undertaken by the Corporation, or alternatively the Corporation will provide an ESR brief that identifies the design work to be undertaken by the Developer's consultant.

### **2.7.1. Water Corporation delivered Engineering Summary Report and Detailed Design**

If the Corporation is preparing the ESR and DD; it will be provided to the Developer's consultant for review and comment prior to the design being finalised.

The Corporation's Headworks Delivery team will monitor the progress of the ESR & DD and notify the Developer of any variation to the schedule.

As part of the ESR, the Corporation will prepare a cost estimate of the works, and this will form the basis for the Developer to invite tenders for construction of the works.

### **2.7.2. Developer delivered Engineering Summary Report and Detailed Design**

If an ESR brief is issued, the Developer shall nominate a consultant from the Prequalified Engineering Consultants list. The Corporation reserves the right to decline a nomination.

After receiving the ESR & DD brief and the Contract Administration (CA) requirements the Developer's consultant will submit a fee proposal to the Corporation for review.

The fee proposal will be reviewed based on the current market benchmarks. Fee proposals are accepted within this established margin to ensure minimum requirements are met and unnecessary work is avoided. If the fee proposal is not within the established margins, the Developer's consultant will be required to provide an amended fee proposal within those margins prior to acceptance, or the Corporation may request the Developer to seek fee proposals from other consultants until the fee is acceptable to the Corporation.

The Corporation will advise the Developer of acceptance of the fee proposal via email.

The Developer's consultant will develop the ESR and DD from the provided ESR template. The template includes guidance notes in blue text that identify the key information required. The Corporation will review the ESR and DD and if adjustments are required, comments will be provided through the RRT within 30 working days.

An amended ESR and DD can then be resubmitted for review and endorsement. Once accepted, the ESR and DD will be counter-signed by the Corporation.

### **2.7.3. Approvals**

Approvals are to be obtained by the responsible party as identified on the EATS document. Typically, these are the responsibility of the Developer however, there may be some approvals that the Corporation is required to obtain on the Developers behalf.

It's the Developer's responsibility to ensure all the relevant approvals remains valid (i.e. WAPC conditional approval) to allow for the delivery of the project when required.

Formal pre-requisites to works (PTW) will be managed by the Corporation which should be a formality as necessary approvals have been previously obtained by the Developer.

## **2.8. Tendering and Contract Award**

The Corporation's Project Manager will provide the required template and documents required for the tender process. The Developer's consultant shall submit to the Corporation's Project Manager, the proposed tender in accordance with general conditions of the contract to an approved Australian Standard and the Contract Administration Requirements.

Developer's consultant shall lodge the Contract Administration fee proposal that is acceptable to the Corporation.

The review of the ESR and DD can be included in the Contract Admin fee proposal.

On acceptance of the fee proposal, the Developer shall appoint a consultant to administer the contract.

The Developer's consultant is required to submit draft tender documentation, including a list of proposed tenderers, to the Corporation's Project Manager. If any item is not acceptable, the Developer's consultant is required to make the necessary amendments.

## **2.9. Construction**

### **2.9.1. Construction of Works**

Once the nominated tenderer has been accepted by the Corporation, the construction contract can be awarded.

Once the construction contract has been awarded, the Developer's consultant shall complete a New Asset Information Sheet. The Developer's consultant can then arrange a start-up meeting with the Corporation's nominated project team.

The Developers Consultant shall provide a superintendence role to ensure that the project is delivered in accordance with the design.

The Developer's consultant shall ensure the asset is commissioned as per the agreed Commissioning Plan and Asset Handover Guidelines. This will be in conjunction with the Corporation's Project Manager or Corporation appointed Commissioning Manager. The Developer's consultant shall verify that the assets meet the requirements of the Approved Requirements Baseline (ARB).

The Developer is responsible for the delivery of the Works in accordance with the Construction Contract.

During construction, the Corporation's Project Manager will have oversight off the undertaking and construction of the works and is authorised to direct the developer's consultant administering the contract to make a change or variation to the works, if in the Corporation's opinion the works are do not comply with the detailed design and/or design standards.

### **2.9.2. Cure Plan Requirements**

Under the terms of the DCWA, if the Developer fails to comply or is unable to complete its obligations for the delivery of the works, or if it is the Developer's responsibility and they are unable to complete the ESR/DD, the Corporation may request a Cure Plan from the Developer. If a Cure Plan is required, the

Corporation shall provide written notice to the Developer and the Developer shall provide a Cure Plan within 14 working days of the notice being issued.

The Cure Plan shall include:

- the reasons the Developer failed to comply with its obligations
- the steps the Developer intends to take to comply with its obligations
- the time frame of the above

The Corporation will review the Cure Plan and provide comments.

The Developer agrees to:

- cooperate with the Corporation and use all reasonable endeavours to assist the Corporation in its review of the Cure Plan
- consider all of the Corporation's recommendations and incorporate them into the Cure Plan, and
- provide weekly written updates on the progress of the Cure Plan

The Corporation may issue a Step-In Notice to the Developer to exercise its right to assume the Developer's obligations for construction of the works - or completion of the ESR/DD in the cases where it is the Developer's responsibility - in accordance with the step in rights in the DCWA. This may affect the original timing of the project and clearance of subdivisions, if:

- the Developer does not provide a Cure Plan within the time specified; or
- the Developer fails to comply with its obligations; or
- in the Corporation's reasonable opinion, the Developer is not (other than due to force majeure) diligently implementing the Cure Plan; or
- the Developer fails to cure the Construction Default within the time frame specified in the Cure Plan and such failure is not accepted as reasonable by the Corporation

## **2.10. Asset Acceptance and Takeover**

A final inspection of the works shall be arranged with the Asset Delivery Representative to identify any outstanding defects.

After final inspection, the developer's consultant shall prepare a Project Close Out Report within 30 working days for review and acceptance by the Corporation. This report will include a final payment claim of all agreed consultancy fees.

The acceptance of the Project Closeout Report will enable asset takeover. A takeover letter will be issued by the Corporation within 30 working days of the Close-Out Report acceptance.

## **2.11. Recoup of Works**

The Corporation will recoup the Developer for the construction of headworks infrastructure that is part of the CIP.

The final recoup to the Developer will be paid in accordance with the terms agreed to in the DCWA.

The Corporation will recoup the Developer the value of the total project costs as agreed in the Project Close-Out Report.

The GST component of the recoup to the Developer will be paid by the Corporation within 28 working days of the Project Close-Out Report being accepted.

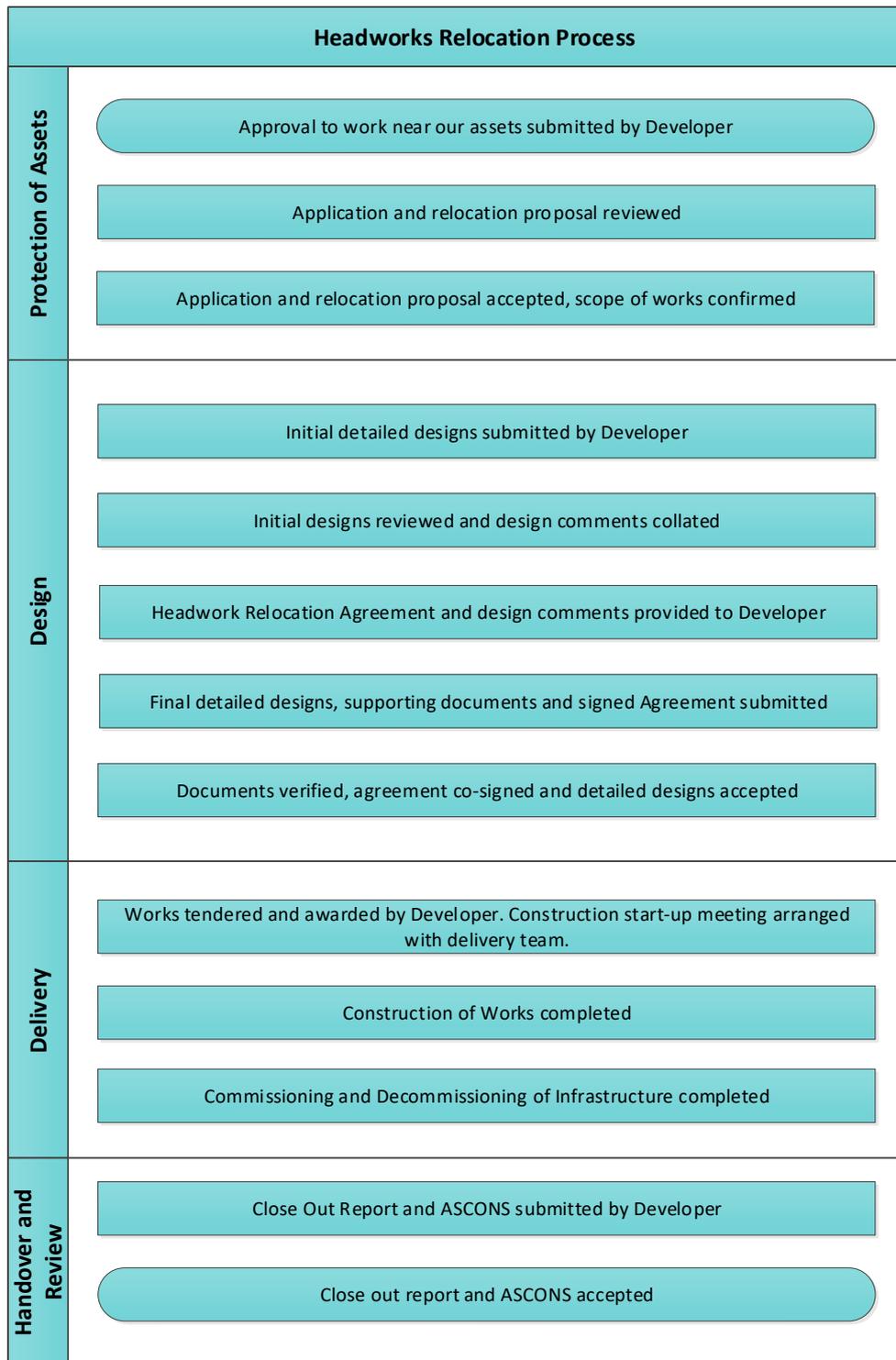
## **2.12. Subdivision Clearance Dependant on Headworks Infrastructure**

For any information relating to subdivision clearances dependant on headworks infrastructure, please see Appendix 5 in the [Developers Manual](#).

### 3. Relocating existing Headwork Infrastructure

#### 3.1. Process

The process to relocate headworks infrastructure is broadly separated into four phases. These are shown in the below diagram and their requirements are described in more detail throughout this section of the manual.



## **3.2. Requirement to initiate process**

### **3.2.1. Working near assets**

Prior to engaging with the Headworks Delivery Team, it is expected the Developer has received approval to relocate the existing headwork infrastructure through the working near assets process.

For proposed works that have the potential to impact or damage existing Corporation infrastructure, the Developer is required to submit a design plan to show how they intend to relocate or protect the infrastructure. The Asset Protection team will review relocation proposal and either approve, approve with conditions, or request changes if the application is not acceptable. For relocations of headworks infrastructure, an approval condition will require the preparation of a detailed design.

The Asset Protection team will provide the Developer with a relocation project pack which includes:

- The approved relocation concept
- Scope of works statement
- Detailed design submission requirements

## **3.3. Initial Designs**

### **3.3.1. Design submission**

Once the relocation project pack has been received, the Developer's Consultant can submit the initial detailed designs alongside the submission form.

The Headworks Delivery team will assess the detailed design against the approved design plan submitted as a part of the working near assets process. If there is a variance to the scope of works across the two designs, the Headworks Delivery team will not proceed with the assessment and will redirect the Developer's Consultant back through the working near assets process.

If there is no variance to the scope of works across the designs, the Headworks Delivery team will commence the design review.

NOTE: Detailed designs need to be completed by a pre-qualified consultant. If the developer's consultant is not listed on the pre-qualified register, or part of the Minor Works Design Panel, the Headworks Delivery team will not proceed with the assessment and will return all documentation to the Developer.

### **3.3.2. Design review**

The Headworks Delivery team will review the initial detailed designs with key groups across the Corporation to ensure conformity to Corporation requirements as well as applicable design standards. Any design advice or change requirements will be recorded on the Review Response Table and should support the development of the final designs.

At the completion of the design review, the Headworks Delivery team will provide the developer's consultant with:

- A copy of the detailed designs with administrative details completed (plan numbers, file numbers etc)
- Review Response Table

- Headworks Relocation Agreement for signing by the Developer
- Other supporting documentation (if required)

**NOTE:** Time should be allowed for a review of the initial designs and supporting information across the Corporation. Although the Corporation will endeavour to provide a timeframe, this will be indicative only.

### **3.4. Developer Approvals**

It's the Developer's responsibility to obtain all approvals required as per the External Approvals Manual and ensure they remain valid to allow for the delivery of the Works.

Formal pre-requisites to works (PTW) will also be managed by the Developer through an authorisation letter.

### **3.5. Construction Contract**

The Construction Contractor selected by the Developer to complete the works must be of a level of appropriate capability and competence. The construction contract shall be submitted to the Corporation for review and acceptance prior to being entered into.

The construction contract shall:

- provide for a defect's liability period;
- contain terms and conditions that ensure the Construction Contractor (and sub-contractors, if any) will satisfy the Developer's obligations to the Water Corporation; and
- be consistent with the requirements specified in the Headworks Relocation agreement

The Developer may enter into the construction contract once accepted by the Corporation.

If the Developer proposes to vary the Construction Contract or change the Construction Contractor, the changes shall be submitted to the Corporation for review and acceptance.

**NOTE:** The Developer remains entirely responsible for the Construction Contractor despite any consideration or comment on the selection of the Construction Contractor by the Corporation or any person acting on behalf of the Corporation

### **3.6. Final Designs**

#### **3.6.1. Design submission**

Final designs shall be submitted with the signed Headworks Relocation Agreement and other supporting documentation. Supporting documentation generally includes:

- Required Developer Approvals
- Draft Commissioning Plan
- Safety in Design Report

**NOTE:** Specific supporting documentation required is outlined during the initial design review.

### **3.6.2. Acceptance of Final Design**

The Headworks Delivery Team will review the final design submission against items listed in the Review Response Table document. If there are items which have not been reflected on the final designs, the Headworks Delivery team will return the designs and supporting documentation to the developer's consultant for amending.

If all items in the Review Response Table have been reflected, and the supporting documentation verified, the Final Design will be accepted.

The Headworks Delivery team will notify the developer's consultant the final designs have been accepted, as well as provide the details of the assigned Corporation representatives who will assist them through the next phases of the project.

The notification of Final Design acceptance will be the handover point between the Design and Delivery teams. During the Construction and Takeover phases of the project, the Project Manager will be the Corporations point of contact for the Project.

Prior to commencing the works, the Developer shall request a start-up meeting with the relevant Corporation representatives.

## **3.7. Construction**

### **3.7.1. Undertaking of the works**

The Developer is responsible for the delivery of the Works in accordance with the Construction Contract and terms set out in the Headworks Relocation Agreement.

The Developers Consultant shall provide a superintendence role to ensure that the project is delivered in accordance with the design.

The Corporation's Project Manager is the point of contact during delivery of the works and is authorised to direct the developer's consultant to make a change or variation to the works, if in the Corporation's opinion the works are not safe or do not comply with the detailed design and/or design standards.

Any costs associated with the delivery of the works, including those associated with isolations and/or decommissioning of the existing asset, are the responsibility of the Developer and should be identified at the start-up meeting.

## **3.8. Takeover**

### **3.8.1. Final Takeover Inspection**

At the completion of the Works, the Developer shall arrange a final inspection with the Corporation to identify any outstanding defects and ensure compliance to the Final Designs. If the Corporation is satisfied that the Works are complete, a satisfactory Final Takeover Inspection (FTI) and takeover letter will be issued.

The Corporation will take over ownership and arrange with the Developer the connection of the new infrastructure. In conjunction with the Corporation's Project Manager, the Developer shall ensure all connections of new infrastructure are undertaken by the Corporation and in accordance with the accepted Commissioning Plan.

Prior to decommissioning the existing infrastructure, the Developer shall provide a decommissioning method to the Corporation for review and acceptance. Once decommissioned, all risks associated with the infrastructure, including the removal, will be the sole responsibility of the Developer. The Developer still has a responsibility to submit as-constructed information and a Close Out Report.

### **3.9. Close out Report**

After the final inspection, the Developer's Consultant shall prepare a Project Close Out Report within 40 working days for review and acceptance by the Corporation. The close out report shall include As-constructed Drawings. A template is available on the website under 'Key Documents'.

If accepted, the Developer and developer consultant will be notified. The acceptance of the Project Closeout Report confirms completion of the Developer's responsibilities except for minor "punch list" items as identified in the report.

## **4. Warranty and Liabilities**

### **4.1. Defects liability**

A defects liability period of 12 months shall commence on the date the Corporation takes over the works. During the warranty period, the Corporation will be responsible for the operation and maintenance of the works.

An inspection at the end of the warranty period will be carried out by the Asset Inspector 11 months after the final takeover inspection.

### **4.2. Repairs during warranty**

During the warranty period the Developer shall be responsible for ensuring that satisfactory remedial repairs arising from faulty design, workmanship or materials are carried out. The cost of any consequential damage and claims resulting from such defects shall be charged to the Developer.

During the warranty period, the Corporation may carry out remedial repairs where the fault affects the service to customers and/or public safety. The Developer will be notified of the work carried out as soon as practicable where the remedial repairs are attributable to the construction of the works. The cost of the remedial repairs will be charged to the Developer.

### **4.3. Remedial repairs post warranty**

Where the Corporation's remedial works are determined to be attributable to a design or construction error or omission, the cost of the remedial works shall be charged to the Developer.

During the remedial repairs post warranty period, the Developer shall be responsible for the costs associated with any non-conforming assets.

Remedial works shall include, but not be limited to;

- the absence of infrastructure components
- incorrect installation (i.e. inadequate bedding or compaction)
- inadequate separation of any component of the works from other infrastructure and;
- non-compliance with a design standard.
- temporary access track maintenance to the headworks infrastructure site remains the responsibility of the Developer until such time as the permeant subdivisional access road is provided