



Scone to Murrurundi Water Pipeline Project

FACTS for landowners and residents

August 2016



Upper Hunter Shire Council is constructing an underground water supply pipeline from Scone to Murrurundi. The pipeline will provide a secure water supply for Murrurundi from Lake Glenbawn.

Design and environmental assessments are underway and it is likely that construction will start in 2017. Council will advise all affected landowners in writing when approvals are granted and a construction contractor is selected.

The pipeline will be approximately 40 kilometres in length which includes tanks and pump stations.

The proposed pipeline corridor crosses land in road reserves, crown land, land owned by the Australian Rail Track Corporation and some privately owned land. Access may also be needed to other properties even in instances where the pipeline itself may not be crossing onto those properties.

Council will meet with all affected land owners to establish appropriate Access Agreements.



For further information see Council's publication: **SUMMARY: Scone to Murrurundi Water Pipeline Project.**

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Q and A for Property Owners along the Pipeline Corridor

What will happen on my property prior to construction starting?

Council will need to carry out investigations, such as soil tests, surveying and environmental assessments, along the pipeline corridor, prior to the engagement of a contractor. In areas of difficult access and steep land along the pipeline corridor, access may be required to your land for these investigations even if the pipeline is not planned to be constructed on your property. Council will establish an Access Agreement with you prior to any investigations on your land.

Prior to construction starting, the contractors will discuss timing, access and spoil management with you and may also erect some temporary fencing to keep your property and livestock secure. They will also discuss any issues identified in your Access Agreement.

Once the corridor is secure then clearing and setting aside of the topsoil will take place to allow for construction to begin. Clearing of the topsoil will only occur shortly before the pipes are placed as the aim is to return the topsoil as quickly as possible post construction, to aid with rehabilitation and minimise the impact.

Council's Project Team and the contractor will contact you well in advance of any activities occurring on your property.

When will construction start?

It is likely construction will start in 2017, once the design and tender process is completed. Council will advise all landowners affected in writing when approvals are granted and a construction contractor is selected.

How long will construction take on my property?

The contractors aim to lay several hundred metres of pipe per day, however progress will vary according to geographical and weather conditions. Obstacles such as creek and road crossings, and the installation of valves which may be fitted after installation of the pipe, may require the contractor to revisit your property at a later date to complete construction.

Who will coordinate access to my property?

Your access requirements will be included in your individual Access Agreement to inform the contractor and Council.

Access for investigations will be coordinated by Council and discussed with you prior to establishing an Access Agreement. Construction access to each property will be co-ordinated by the contractor who will discuss with each owner how and when access is required.

Who is involved during construction?

Council will manage the project. Council will engage a head contractor to prepare the final design and construct the pipeline. Other companies and organisations may also be involved during the construction and rehabilitation process, which may include construction contractors, environmental consultants, surveyors and rehabilitation contractors. All parties involved in the project will be required to follow the conditions of the Access Agreements when working on private land.

Will construction of the pipeline be disruptive?

Construction is aimed at being completed on your property as quickly as is practicable to minimise the disruption. The pipeline construction process is proposed to be carried out as follows:

1. Council's Pipeline Project Team meet with affected landowners
2. Development of access agreement
3. Preliminary investigations onsite e.g. environmental, geotechnical
4. Initial investigation of the site by the construction contractor and discussion with you regarding timing, access, spoil management and fencing
5. Temporary webbing or fencing (when required), clearing of vegetation, construction of a stock pile site. Machinery and equipment will arrive with contractor's staff
6. Pipes and pipe fittings will be delivered
7. Trench will be excavated
8. Pipe will be laid in the trench and connected
9. The trench will be back filled
10. Where applicable, pump station and balance tank construction
11. Topsoil will be replaced and rehabilitation will occur
12. Post-construction inspections

Will I have to move stock or alter my farming operations during construction?

If required, the construction corridor will be sectioned off prior to the start of construction on your property so no stock should have to be moved.

Contractors will be mindful of farming activities such as lambing or calving, however it will be your responsibility to inform the contractors or Council of any sensitive operations that may be taking place on your property during construction.

Council will provide you with notice as to when construction is expected to start on your property to allow you time to plan for stock movement or other activities you deem as necessary.

What happens if my property is damaged?

If damage occurs on your property, please contact the Project Manager Chris Agosto on 02 6540 1167 so that it can be addressed as soon as possible.

Any damage to existing infrastructure caused by the construction of the pipeline will be repaired or replaced in a timely manner at no cost to the landowner.

Who do I contact if I have an issue during construction?

All work sites will have contact details for the contractor sign posted for your convenience, however you are free to contact the Project Manager directly on 02 6540 1167.

Council will inform you of the contact details well before construction starts and who to talk to should any issues arise.

Access Agreements

Although most of the construction works and the pre-construction investigations will be on the road reserve or crown land, there will be a requirement to enter private property from time to time. Prior to this occurring, Council's Pipeline Project Team will meet with landholders along the pipeline corridor to establish Access Agreements with each landholder, outlining the measures required for access to their property. The aim of each agreement is to minimise inconvenience and disruption to the landowner.

The Access Agreements will incorporate the measures required for access during construction of the pipeline if the property is affected by this phase of the project. These measures may include temporary use of land for construction or the acquisition of an easement. Other issues that may be considered could include livestock management during construction and access times, soil erosion control, fencing, weed control and restoration requests.

In some instances Access Agreements will also need to include access for the ongoing maintenance of the water supply pipeline.

Easement Agreements

An easement is a "right of access" granted to a person other than the owner of the land to use the land for a particular purpose. Easements can be granted for above ground items such as power lines and rights of carriageway, or for underground services such as pipelines for gas, water, sewerage and electricity cables.

Ownership of the land remains with the landowner, but the use of the land is subject to certain conditions, which are outlined in a document called an Easement Agreement.

Temporary work spaces during construction

To enable the proposed Scone to Murrurundi water pipeline to be installed, Council's contractor will require up to a 20 metre wide working area. Of the 20 metre wide area, up to 3 metres will be cleared to enable the pipe to be laid out and topsoil to be separated from the subsoil. This will enhance the rehabilitation by allowing the pipe trench to be refilled with subsoil and then capped with the topsoil.

Following construction, the 20 metre wide corridor will be restored to as close to original condition as practical. Restoration work will be carried out according to the Access Agreement.

The water pipeline easement after construction

Council will need to acquire a permanent 3 metre wide easement for the operation and maintenance of the pipeline. Note that final easement width may be greater for some properties due to physical land features such as watercourses.

Following the proposed installation of the pipeline and restoration of disturbed areas, Council will only need to access the easement to inspect valves, undertake scheduled maintenance and in the event of an emergency.

An easement will also be required where new power lines are to be installed to pumps. This easement will need to be approximately 20 metres wide and cleared of large vegetation.

In addition, Council will need to purchase land for pump stations and balance tanks along the route. This process will be similar for the acquisition of the easement, however the land will be owned by Council.

Easement agreements, compensation and protection of your property.

In Easement Agreements, measures are in place to ensure that landowners are compensated and the value of properties protected. These measures include:

- Paying fair compensation for the acquisition of the easement, including providing landowners with a valuation for the proposed easement prepared by an independent valuer appointed by Council.
- Signing an Access Agreement which includes a Property Construction Report. This is a binding agreement between Council and the landowner that sets out the terms under which construction and rehabilitation of the property will occur.
- Taking a diligent approach to rehabilitation under the guidance of an independent environmental consultant that includes extensive pre-work surveys and a detailed plan for short-term rapid reinstatement and the long-term rehabilitation of the property.

Council is committed to working with landowners to reach agreement with as many landowners as possible without the need to resort to compulsory acquisition.

Valuation and assessment of easement compensation

When a NSW Authority acquires an interest in land from a private landowner by way of an easement, the landowner becomes entitled to compensation under the NSW Land Acquisition (Just Terms Compensation) Act 1991.

Valuations/assessments of easement compensation are prepared by independent registered valuers to determine the easement compensation having regard to the provisions of the Land Acquisition (Just Terms Compensation) Act 1991.

Compulsory acquisition only when required

Where an agreement cannot be reached with a landowner, Council may submit an application to compulsorily acquire the easement. This is only undertaken once all other options have been exhausted.

Pre-Construction Investigations

Upper Hunter Shire Council is managing the Scone to Murrurundi Pipeline Project and has engaged consultants to assist in the investigation and assessment of the project. This includes pipeline route selection, pump station and balance tank locations, the Review of Environmental Factors (REF), geotechnical investigation, survey and detailed design.

Pipeline route selection

A proposed pipeline corridor has been identified by the project team and independent experts in pipeline construction after analysis of the topography, property boundaries, social and environmental constraints and economic factors.

The Pipeline Project Team has driven and walked sections of the corridor between Scone and Murrurundi to identify the most technically feasible and environmentally appropriate route.

The route selection also considered the ongoing impacts on landholders, with a focus on running the route close to boundary fences and within road reserves where possible.

Review of Environmental Factors

The Review of Environmental Factors (REF) considers the potential environmental impacts of the proposed pipeline and makes recommendations regarding mitigation measures to reduce these impacts. Council will engage a consultant to coordinate and compile the REF for this project. A number of specialist sub-consultants may be used to undertake assessments such as:

- Terrestrial ecology impact assessment
- Aquatic ecology impact assessment
- Indigenous heritage impact assessment
- Non – Indigenous heritage impact assessment
- Geomorphology and hydrology (watercourse impacts)
- Spoil handling and waste management assessment.

The REF provides information to enable the Upper Hunter Shire Council to decide if the project should go ahead as proposed. Council will assess and determine the application for project approval against key issues identified by the REF.

Geotechnical investigation

A preliminary above ground geotechnical investigation has examined the types of soil and rock along the proposed pipeline route. This assisted with route selection and determining what further investigation is required.

Further geotechnical investigation is required to determine soil profiles and soil strength to assist with detailed design and construction of the pipeline. This investigation work may involve digging holes with an excavator or drilling using an auger.

Some small samples of material may be taken for laboratory testing with the rest reinstated.

All excavations made will be backfilled and the site left tidy on the same day. Following the completion of the investigations, sites will be rehabilitated.

Survey work

Council will undertake survey work to identify the location of the pipeline route, pump stations, balance tanks and other features of the pipeline. Survey pegs will be placed at relevant locations along the pipeline corridor. Additional surveys will be required leading up to, and during construction.

Pipeline Construction

Landholder notification

The Pipeline Project Team will visit all affected landholders to liaise and confirm any special construction access and restoration requirements they may have. Special requirements might include the need to relocate stock or arrange a temporary property access point. This information will be included in the Access Agreement that will be developed in consultation with landholders.

Landholders will be given at least 28 days notice prior to the commencement of construction on their property and a further 48 hours notice before work commences.

Survey of route and preparation

The construction corridor will be surveyed and marked prior to construction. Pre-construction photos will be taken along the work corridor to aid in the restoration process. Temporary fencing may be erected where necessary to separate stock from the construction works.

Ground preparation

Clearing of vegetation along the route as well as rocks and other obstacles will take place before the trenching machine or excavator digs the trench.

Construction materials, including pipes, fittings and bedding material will be delivered to designated stockpiles. This equipment will then be moved to the pipeline route prior to the trenching taking place using existing access roads and farm tracks where possible.

Trench excavation and pipe laying

The pipeline trench will be approximately 0.6 metre wide and excavated to a depth of about one metre, using a trenching machine or excavator. The top soil will be separated from the subsoil. The excavated material will be stockpiled within the construction corridor adjacent to the trench for backfilling or disposal where appropriate and in consultation with the landholder.

The trenches will be kept open for a limited period of time. Where trenches are required to be left open overnight, security fencing will be put in place to protect people or animals from the work area.

The pipes will be lifted into the trench using an excavator or crane. The pipes will then be joined using a rubber ring seal or welded joints for steel pipes.

Tipper trucks will be used to transport bedding material to the trench and to transport other materials to and from stockpile areas.

Valves with associated surface boxes will be constructed at intervals along the pipeline. These will sit flush with the ground surface for future access. On private land, the location of valves will be placed as close as possible to boundaries or fence lines to minimise the impact on paddocks. Valves will have a permanent post marker installed above ground to allow for easy identification of their location.

Construction hours are expected to be 7am until 6pm, Monday to Friday and 8am until 1pm on Saturdays. Landholders will be informed in advance if extended working hours are required.

The contractor aims to lay several hundred metres of pipe per day, however progress will vary according to soil type, depth to rock and rock hardness, the degree of slope and weather conditions.

Obstacles such as creek and road crossings, and the installation of air, scour and isolation valves which may be fitted after installation of the pipe, may require the contractor to revisit your property at a later date to complete construction.

Restoration of Land

Council is committed to minimising the impact on properties along the proposed pipeline route and rehabilitation activities will take place as soon as practicable after completion of the construction activities.

Pre-construction activities

Environmental consultants will assist Council with assessing and documenting the current condition of each property before construction starts. In consultation with landowners, Council will determine the rehabilitation requirements of each property. These requirements will be included in the pipe laying tender documents and restoration specifications.

A Construction Environment Management Plan (CEMP) will then be prepared. This will outline the project environmental controls that must be employed by the contractor during the construction phase.

Rehabilitation and restoration requirements will be discussed with each landholder prior to construction. Additional requirements will be outlined in the Access Agreement prepared in consultation with each landholder.

In the days leading up to construction, preconstruction photos will be taken of properties along the work corridor to aid in the restoration process.

Rapid reinstatement

The reinstatement of disturbed areas will take place as soon as possible after pipeline laying. Rapid reinstatement activities will occur once trenches have been back-filled and compacted. These activities will include:

- Reinstatement of properties as agreed with the landholder in their Access Agreement
- Reinstatement or replacement of gates and fences
- Spreading top soil and ground cover seeding in accordance with the recommendations of the environmental consultant
- Initial watering of new ground cover
- Installing sediment and erosion control measures
- Ongoing monitoring and approval of rapid reinstatement work by the environmental consultant and the Pipeline Project Team.

The rapid reinstatement work will be undertaken by the construction contractor in accordance with the requirements of the CEMP unless otherwise specified in the Access Agreement.

The work will also be controlled by the construction contract specifications. Council will withhold a financial security from the contractor until it is satisfied with the restoration work undertaken.

On completion of rehabilitation, landholders will be asked to sign an agreement stating their satisfaction with the work carried out on their property in accordance with the Access Agreement.

Longer term restoration

Additional work may be required because of adverse weather that may have affected regrowth or require maintenance of erosion and sediment controls. The Pipeline Project Team will be available throughout and after construction to discuss rehabilitation.

Council will be involved in the longer term monitoring of the rehabilitation and restoration process to ensure the reinstatement objectives agreed with each landholder are achieved. Should problems arise along the pipeline following rehabilitation, Council is committed to addressing them.

Pipeline Maintenance

All long term pipelines need regular maintenance, usually several times a year.

As part of the Scone to Murrurundi Pipeline Project, a number of valves will be located at regular intervals along the pipeline including air valves, scour valves and isolation valves.

Some valves will need to be placed on private property within the pipeline corridor. The final location and design of the valves will be determined by the Pipeline Project Team and expert consultants. Where possible, valves will be placed close to boundaries and fence lines to minimise any impact on paddocks.

Periodic inspections of the pipeline and the valves will need to be undertaken. This will involve vehicle access along the pipeline corridor and an inspection. It may also require lifting of the valve pit lid and turning of the valve handle. Affected landholders will be notified before inspections take place.

Air valves

Air valves will be installed at high points along the route of the pipeline to let air in and out of the pipeline. The final number of air valves will not be confirmed until the detailed design is completed.

Air valves are proposed to be contained within a concrete circular pit approximately 1200mm in diameter, finished flush with the ground surface with a secured metal lid. The final number, location and construction of air valves will be confirmed in the detailed design.

Scour valves

Scour valves will be installed at low points along the pipeline to assist with de-watering of the pipeline for maintenance and inspection. Scouring will involve periodically discharging water from the pipeline.

Scour valves are proposed to be contained within a concrete circular pit approximately 1200mm in diameter, finished flush with the ground surface with a secured metal lid. The final number, location and construction of scour valves will not be confirmed until detailed design has been completed.

Isolation valves

Isolation valves (also known as stop valves) will be installed along the pipeline to allow sections of the pipeline to be isolated. These allow selected sections of the pipeline to be de-pressurised so that maintenance work can be safely undertaken. Isolation valves may also be installed on either side of critical crossing points such as creek crossings.

Isolation valves are proposed to have a cast iron surface box approximately 500mm square, flush with the ground surface. The final number, location and construction details of all isolation valves are subject to final design.

Pump Stations and Balance Tanks

The Scone to Murrurundi Pipeline Project involves pumping water over a distance of 40km and through a vertical lift of almost 200 metres. This requires the construction of pump stations with balance tanks at locations along the route. Land will need to be acquired to locate these installations if they are to be located on private land. The Pipeline Project Team will speak directly with potentially affected landowners regarding the acquisition of land for this purpose. The location for pump stations and balance tanks will not be finalised until the approval of the final design is completed.

Minimising noise and vibration

Council will assess the potential noise and vibration from pumping stations and mitigation measures to reduce the impact of the pumps will be included in the pump station designs. Mitigation measures may include:

- Pump station building materials – concrete, brick or blockwork construction near residences
- Seals around penetrations
- Diffused ventilation ports
- Pump selection with multi-stage and soft starts
- Vibration dampers for pump mounts and pipe connections
- Check-valve specifications with anti-slam features
- Dual action air valves requiring concrete pits and lids
- Location of pumps at an appropriate distance from residences.

Visual amenity

The visual impact of pump stations and balance tanks will be assessed and recommended mitigation measures will be included in their designs. The tanks will be in a colour that best blends into the surrounding landscape. Trees and shrubs will be planted to provide a visual screen.

Balance tanks

Design work has indicated the pipeline will require balance tanks at various locations including at some pump stations. These tanks may be constructed from steel and/or concrete and will have a capacity of up to 250,000 litres. The largest tanks will be approximately 3.5 metres in height and 9.5 metres in diameter and all tanks will include a bird and vermin proof roof.

Access to pump stations and balance tanks

Pump stations and balance tanks will require an all-weather gravel access road during construction and for ongoing maintenance. Council will be responsible for the establishment and maintenance of the access road.

During pipeline operations, Council staff will visit the pump stations approximately once a week. There will also be periods of maintenance of the pump stations throughout their life.

For more information or to report an issue or complaint contact the Council's Project Manager Chris Agosto directly on 02 6540 1167 or email cagosto@upperhunter.nsw.gov.au

CONTACT US

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For further information see Council's publication: SUMMARY: Scone to Murrurundi Water Pipeline Project.