

Submissions Report

Modification to the Picton Regional Sewerage
Scheme

November 2012

Table of Contents

1	Introduction	3
1.1	Background	3
1.2	Planning Approval Framework	3
1.3	Description of the modification	4
1.4	Summary of changes since exhibition of the Assessment Report	4
1.5	Requested amendment to the Conditions of Approval	4
1.6	Purpose of this Submissions Report	5
2	Consultation and submissions	6
2.1	Overview	6
2.2	Public exhibition	6
2.3	Submissions	6
3	Consideration of submissions	8
3.1	Support for the modification, requests for more flexible approach to future connections and specific requests for connection	8
3.2	Capacity of the existing irrigation area and discharge to the environment	10
3.3	Noise and vibration/ visual amenity	15
3.4	Corrections / revisions	15
3.5	Notifying community about construction works	20
3.6	Flora & Fauna	20
3.7	Other approvals and mitigation measures to be considered	21
3.8	Reuse	22
4	Conclusion	23
5	References	24

1 Introduction

1.1 Background

On 15 January 1997, the Minister for Urban Affairs and Planning gave conditional approval to Stage 1 of the Picton Regional Sewerage Scheme (the Scheme). Certain changes to the Scheme were proposed in 1998 and the first modification of the Minister's approval was granted in 1999.

The Scheme collects wastewater from the villages of Picton, Tahmoor and Thirlmere via a gravity reticulation network and transfers it through sewage pumping stations to the Picton Water Recycling Plant (the plant) and the Picton Reuse Farm Scheme (the farm). The plant was designed to treat an average dry weather flow of 2.7ML/day and was commissioned in early 2000 to service the area within the boundary shown in Figure 10.1 of the Environmental Impact Statement (EIS) (ERM Mitchell McCotter 1996).

Sydney Water has received requests for connection to the Scheme from outside the approved Scheme boundary. Sydney Water obtained a second modification to the Minister's approval from the Department of Planning and Infrastructure (DP&I) in April 2009. This allowed the approved Scheme boundary to be extended to allow established community service facilities to connect to the Scheme if required.

Future growth in the Picton, Tahmoor and Thirlmere areas has been forecast in consultation with the Department of Planning and Infrastructure (DP&I) and Wollondilly Shire Council. The current estimates predict that around 2070 lots will be developed by 2036 (Wollondilly Shire Council, 2011).

Sydney Water has reviewed these future growth forecasts and the capacity of the Scheme and identified uncommitted, spare capacity within the Scheme. Sydney Water is now seeking a third modification to the Minister's approval to remove the concept of a defined Scheme boundary and allow properties in future growth areas and other areas to utilise uncommitted spare capacity by connecting to the system based on a set of criteria (detailed further in Section 1.3 of this report).

An Assessment Report (Sydney Water 2011) was prepared as part of the modification application which described the proposed changes to the approved Scheme, assessed their potential impacts and outlined mitigation measures to minimise these potential impacts.

1.2 Planning Approval Framework

The Picton Regional Sewerage Scheme was determined as likely to have a significant impact on the environment. Therefore, an EIS was prepared under Division 4 of Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). An EIS was completed for Stage 1 in January 1996 and the Minister for Urban Affairs and Planning gave conditional approval on 15 January 1997.

As a result of the Minister for Planning's Order of 29 July 2005, any projects likely to have a significant effect on the environment and that would have previously required the preparation of an EIS under Part 5 of the EP&A Act fell under Part 3A of the EP&A Act. This included the Picton Regional Sewerage Scheme.

In May 2011, the NSW Government announced that Part 3A would be repealed and that transitional arrangements would apply for existing approved projects. The transitional arrangements commenced on 1 October 2011. Under Schedule 6a sub-clause 1(a) of the EP&A Act, Part 3A continues to apply to approved projects and the Minister for Planning and Infrastructure remains the approval authority.

Section 75W of the now repealed Part 3A of the EP&A Act relates to the modification of projects approved under Part 3A. Section 75W (2) allows a proponent to request the Minister to modify a project's approval.

1.3 Description of the modification

Sydney Water is seeking a modification of the Minister's approval for the Scheme. This modification would, if approved, allow properties from outside the approved Scheme boundary to connect to the Scheme using the uncommitted spare capacity at the plant and farm.

These additional connections would initially be from the seven growth areas on the outskirts of Picton, Tahmoor and Thirlmere identified by DP&I and Wollondilly Shire Council (refer to the updated Figure 2 of this report), as well as other areas outside the scheme boundary.

This modification request seeks to remove the defined scheme boundary documented in the original EIS and instead allow future connections based on the following criteria:

- property owners/ developers must be willing to comply with Sydney Water's connection requirements
- property owners/ developers must have an existing relevant planning approval obtained under the *Environmental Planning and Assessment (EP&A) Act 1979*
- Sydney Water would ensure that flows from future connections would be less than the approved Scheme capacity of the plant and farm and that the Scheme's Environmental Protection Licence (EPL) conditions can be met when considering connection requests.

This will enable Sydney Water to respond in a more timely manner to requests for connection to the system and avoid future extensions to the scheme boundary via the Section 75W modification process.

Sydney Water has identified new assets and amplifications required to the collection system to service the additional growth areas and facilitate connections to the Scheme in the short-term, including the following:

- amplification of two sewerage pumping stations (SPSs)
- construction of three new SPSs and rising mains
- construction of a wastewater pipeline at West Picton.

No amplifications to the plant or farm are required at this stage to the service short-term growth (to 2018) which would be permitted by this modification.

1.4 Summary of changes since exhibition of the Assessment Report

Removal of Scheme boundary

The proposal as originally described in the Assessment Report was to *extend* the current Scheme boundary as shown in Figure 10.1 of the EIS to allow identified future growth areas to connect to the Scheme using the uncommitted spare capacity. However, Sydney Water is now seeking to *remove* the concept of a Scheme boundary entirely to allow future growth to connect to the system provided they meet the criteria listed above in **Section 1.3** and the uncommitted spare capacity in the system was not exceeded. This will enable Sydney Water to respond in a more timely manner to requests for connection to the system and avoid the need for further boundary modifications (refer to **Section 3.1** for further information).

Figures 3 – 5 from the Assessment Report have been updated in **Section 3.4** of this report to show the latest growth areas provided by Council and removal of the Scheme boundary.

1.5 Requested amendment to the Conditions of Approval

The following amendment (**shown in bold**) is requested to the Picton Regional Sewerage Scheme Conditions of Approval 1, 1A and 1B:

General

1. *The proposal shall be carried out in accordance with:*

- (a) *The proposal contained in the environmental impact statement (EIS) Picton Regional Sewerage Scheme prepared for the Sydney Water Corporation by ERM Mitchell McCotter, dated January 1996 (hereafter referred to as 'the EIS'), subject to modifications to the proposal as described in Section 2.4 of the Picton Regional Sewerage Scheme Director-General's Report, dated November 1996 (hereafter referred to as 'the Director-General's Report'), **but excluding the Scheme boundary as defined by the black line shown in Figure 10.1 of the EIS***
- (b) *The review of environmental factors (REF) Proposed Modifications to the Picton Regional Sewerage Scheme, Sydney Water TransUtilities Consortium, dated November 1998....*
- (c) *All identified plans, safeguards and mitigation measures identified in the EIS, as summarised in Appendix B of the Director-General's Report.....*
- (d) *The Request for Modification to Minister's approval for the Jamberoo; Mulgoa, Wallacia, Silverdale; and Picton Regional Sewerage Schemes prepared by Sydney Water, dated 24 November 2008....*
- (e) ***The Request for Modification to the Minister's approval for the Picton Regional Sewerage Scheme, dated 15 November 2011, including Assessment Report dated November 2011 and the Submissions Report dated October 2012; and***
- (f) *The conditions of approval granted by the Minister.*

Despite the above in the event of any inconsistency the later document shall prevail. The conditions of this approval shall prevail over any other document in the event of an inconsistency....

Limits of Approval

- 1A *Nothing in condition (1d **and** 1e) authorises any additional connections where any resultant additional flows would result in the capacity of the collection system, Sewage Treatment Plant and re-use farm, as permitted by conditions 1(a) and 1(b) being exceeded.*
- 1B *Sydney Water must, prior to authorising any additional connections under condition 1(d) **or** 1(e), review the uncommitted spare capacity and ensure that this capacity is sufficient to cater for proposed additional connections.*

1.6 Purpose of this Submissions Report

This Submissions Report responds to issues raised in the submissions received following public exhibition of the Assessment Report. Responses to the submissions draw on the findings of the Assessment Report as well as new information gained since the preparation of the Assessment Report. This report will assist the DP&I to advise the Minister for Planning and Infrastructure, or their delegate, on whether the modification application should be approved.

The DP&I received submissions in response to the Assessment Report and forwarded them to Sydney Water, the last submission being received on 7 March 2012. The DP&I asked Sydney Water to respond to the issues raised in the submissions.

Following finalisation of the Submissions Report and submission to the DP&I, the Director-General will prepare a report. The Minister for Planning and Infrastructure, or their delegated approver, after considering this report, may then approve the modification application.

2 Consultation and submissions

2.1 Overview

Sydney Water kept key stakeholders involved and informed throughout the preparation of the Assessment Report and modification application. Key stakeholders have also been consulted during the preparation of this report. Consultation before and during preparation of the Assessment Report is described in Section 6 of that report.

2.2 Public exhibition

The DP&I exhibited the modification application from 18 January 2012 to 15 February 2012.

During the exhibition period the public was able to review the modification application and Assessment Report and forward submissions to the DP&I to help it in its assessment of the application. Public exhibition gave the community, government agencies and stakeholder groups an opportunity to input ideas, raise issues and provide feedback.

The DP&I exhibited the modification application and supporting Assessment Report for public information and comment at the Wollondilly Shire Council Library in Picton and its office at 22-33 Bridge Street, Sydney. The document was also available on the DP&I website.

The DP&I used newspaper advertisements to notify the community about the exhibition of the modification application. Advertisements were placed in the Macarthur Chronicle on 17 January 2012 and the Sydney Morning Herald and Daily Telegraph on 18 January 2012.

2.3 Submissions

Submissions were invited from the community and other stakeholders during the public exhibition process. The DP&I received ten submissions from State and local government agencies, special interest groups and the local community (Appendix A). None of the submissions received opposed the modification.

A summary of the issues and comments raised in the submissions is provided below:

- requests for more flexibility in the areas that could be serviced by the Picton Sewerage Scheme and requests for specific connections (5),
- concerns were raised about the capacity of the existing irrigation area/ discharge to the environment (5),
- minimising the impacts of noise and vibration and visual amenity (1),
- potential flora and fauna impacts (1),
- notifying residents of construction works (1),
- water reuse (1),
- identifying other approvals that may be required (3), and
- advice was also provided on the need to amend the locations of the growth areas shown in Figures 2-5 of the Assessment Report (1).

Most submissions commented on more than one issue. Table 1 outlines where in the Submissions Report the issues are discussed. The relative importance of the issues is also demonstrated by listing the number of times each issue was raised in the submissions.

Table 1 Frequency of issues raised in submissions and where addressed

Issue	Number of times issue raised	Where addressed in submissions report
Support for the modification , requests for more flexibility in allowing future connections and requests for specific connections	5	Section 3.1
Capacity of the existing irrigation area/ discharge to the environment	5	Section 3.2
Noise and vibration/ Visual amenity	1	Section 3.3
Flora and fauna impacts	1	Section 3.4
Notifying community about construction works	1	Section 3.5
Water reuse	1	Section 3.6
Other approvals and mitigation measures	3	Section 3.7
Advice on need to amend location of growth areas shown in figures/ maps	1	Section 3.8

3 Consideration of submissions

This chapter presents the comments made in the submissions. Each submission was reviewed and the specific issues were identified and categorised based on the environmental issues covered by the Assessment Report.

The comments are presented in dialogue boxes and Sydney Water's response is provided below each box. A number of comments were common to several submissions and these have been grouped together in the dialogue box with a combined response provided below.

3.1 Support for the modification, requests for more flexible approach to future connections and specific requests for connection

Submission 10 (DP&I – Sydney West Region)

In principal, the mapped service boundary is generally supported ... as it reinforces the concept and policy of encouraging urban development in an orderly and well situated fashion, near existing village services. However, it is also acknowledged that estimates and predictions of housing lot production will vary and, at times, decisions about development should be made on a merits based approach.

...

It is considered that the proposed boundary revision will adequately cater for existing endorsed proposals. However, it is noted that estimated lot yield will vary over time and will be subject to further planning proposals.

In these circumstances, while the regional team supports the concept of a 'boundary' – it is recommended that consideration be given to some form of flexibility in the modification of consent to allow other development, located outside the boundary, to be considered without the need to again modify the original consent.

Submission 7 – Wollondilly Council

1. Replacement of mapped servicing boundary with assessment criteria

Council requests the determination of the modification of consent include deletion of the mapped servicing boundary. The boundary should be replaced with a set of criteria for assessment to determine sites eligible for connection to reticulated sewer services provided from Picton Sewerage Treatment Plant (STP). Criteria will allow for potential servicing to sites not necessarily confined to those mapped in the Assessment Report and will avoid the need to repeat the modification of consent if and when new sites are granted development consent or Planning Proposals are finalised for new urban development.

Council recommends the criteria for assessment include:

- a willingness to comply with Sydney Water's connection requirements
- a current development consent obtained under the Environmental Planning and Assessment Act, 1979; and
- that the connection does not exceed the operating capacity and licensing conditions of the Picton STP.

Submission 1 – NSW Health

The scheme currently has spare capacity and the modifications will support additional connections of new growth areas. We fully endorse these developments being serviced by a properly designed centralised sewerage scheme. The alternatives of either private schemes or on-site systems for individual properties generally have inherent operational and maintenance issues. With sewage management being one of its core businesses Sydney Water has the expertise to service these new developments.

From our perspective it seems a straight-forward proposal

Response

Section 1.1 of the Assessment Report clearly indicated that Sydney Water intended to extend the current Scheme boundary to enable properties outside this boundary to connect to the Scheme provided they meet Sydney Water's connection criteria and flows from the newly connected properties do not exceed the uncommitted spare capacity of the farm and plant.

These submissions suggest a more flexible approach to the connection of new properties into the Picton Sewerage Scheme. Sydney Water also supports this approach. To allow flexibility and efficiencies in the way future development is serviced and connected, Sydney Water is now seeking to remove the concept of a specific Scheme boundary from the Minister's approval for the Scheme. Future connections would be possible provided they meet the criteria outlined in **Section 1.3** of this report. This will enable Sydney Water to respond in a more timely manner to requests for connection to the system and avoid the need for further boundary modifications.

There may be a perceived risk that removing the concept of an 'approved Scheme boundary' would result in future connections eventually exceeding the existing capacity of the WRP and farm.

An assessment of the capacity constraints and opportunities of the Picton Water Recycling Plant was undertaken by GHD in 2012 (GHD, 2012). The current operational inflows of the Scheme, as well as approved capacity of the plant and farm are shown below in **Table 1**.

Table 1: Existing Picton Sewerage Scheme Capacity and current Operation/ flows

Existing Scheme Capacity	ML/day
Plant	2.7
Farm (90 hectares)	2.5
Current operational flows	1.4

As shown above in Table 1, there is about 1.1 ML/ day of uncommitted spare capacity in the current Scheme. There is adequate uncommitted spare capacity within the Scheme to cater for projected short-term growth (to 2018) which would be an additional 0.8 ML/ day. Detailed planning is currently underway to determine options to cater for the long term (up to 2036) in the area.

Submission 3 – Bradcorp Holdings Pty Ltd

Bradcorp Holdings Pty Ltd supports the "Picton Sewerage Scheme – Scheme Boundary Expansion" application from Sydney Water Corporation.....

This letter seeks for the Stonequarry Resort development to be included within the boundary to be serviced by Picton Sewerage Scheme, in accordance with Section 1.1 of the Modification to the Picton Regional Sewerage Scheme Assessment Report, November 2011.

....

Bradcorp is willing to comply with Sydney Water's connection requirements. Stonequarry Resort and Rural Residential development is an approved and commenced development, which was obtained under the Environmental Planning and Assessment (EP&A) Act 1979 granted by Wollondilly Shire Council.

Submission 5 – TSA Management Pty Ltd

RSL LifeCare has recently lodged a development application with Wollondilly Council to extend the existing nursing home on the site by 60 beds, with a request lodged to Sydney Water to connect the nursing home facilities to the Sydney Water sewer in Bridge Street. RSL LifeCare requests that this recent application to connect the 130 bed nursing home to Sydney Water sewer be given favourable consideration and be taken into account in the design of the Scheme expansion.

In accordance with the Sydney Water requirements RSL LifeCare understands and is willing to comply with the following:

- Exhibit a willingness to comply with Sydney Water connection requirements; and
- Exhibit an existing relevant planning approval obtained under EP&A Act (this development application is currently with Wollondilly Council).

RSL LifeCare is also planning further investment to expand the range of aged care facilities on the site to cater for local demand for these services in the region. This future expansion will require additional sewer capacity and therefore RSL LifeCare requests that Sydney Water consider allocating additional capacity to the Site in its Scheme expansion design to cater for the substantial community benefits that these facilities will bring. Provision of sewer capacity to the site by Sydney Water will significantly aid in the provision and viability of these facilities.

To this end, RSL LifeCare requests that Sydney Water consult further with them regarding the allocation of additional capacity in the Modification to the Picton Regional Sewerage Scheme project to cater for future expansion of aged care facilities on the [Queen Victoria Memorial Home] QVMH site, as these aged care services would provide a valuable community benefit to the region.

Response

Sydney Water works with local councils, DP&I and developers to understand the servicing requirements and timeframes of proposed developments, assess the capacity of the existing system and determine how specific developments can be integrated into the existing system.

The proposed modification to the Minister for Planning's approval would enable Sydney Water to consider and assess requests such as these through the urban growth feasibility and capacity assessment processes. Where developments can be serviced within the existing uncommitted spare capacity of the plant and farm, Sydney Water would respond to requests for connection by issuing a section 73 certificate to confirm availability and adequacy of water services.

3.2 Capacity of the existing irrigation area and discharge to the environment

Submission 8 - EPA

It is of key concern to the EPA that the Assessment Report does not provide information on whether an increase to the STS collection area would have an impact on the volumes and management of effluent both through the farm and in the effluent storage dams including information about the potential implications for unscheduled precautionary discharges. Over the last two years there have been four unscheduled precautionary discharges and the EPA is concerned that this proposal may increase the risk and frequency of need for these unscheduled discharges. More information is required about this issue.

Given the significance of this omission the EPA requests that this issue be addressed and the AR subsequently be resubmitted for further review.

Response

Sydney Water provided further information to EPA in a letter dated 19 September 2012 in response to their concern that the additional connections permitted by the removal of the scheme boundary would result in an increase in unscheduled discharges from the Picton plant. A summary of the additional information provided to EPA is outlined below.

On the basis of the additional information supplied by Sydney Water, the EPA indicated their support for the proposed removal of the Scheme boundary, provided it does not affect compliance with the existing EPL 10555 (EPA letter to Sydney Water, dated 30 October 2012).

Existing capacity of the Scheme and predicted future growth

An assessment of the capacity constraints and opportunities of the Picton Water Recycling Plant was undertaken by GHD in 2012. The current operational inflows of the Scheme, as well as approved capacity of the WRP and farm are shown in **Table 1** above. **Table 1** shows about 1.1 ML/ day of uncommitted spare capacity in the Scheme. The projected growth in the system is shown below in **Table 2**.

Table 2: Project growth in the Picton system

Growth Timeframe	Projected Inflows – ADWF ML/ day
Existing (2012)	1.4
Short-term (2018)	2.2
Long-term (2036)	3.0

As shown in **Table 2** above, there is adequate uncommitted spare capacity within the Scheme to cater for projected short-term growth (to 2018), which would be an additional 0.8ML/day.

Further analysis of the capacity of the individual Scheme components found the following opportunities and constraints:

- **Network** – modelling undertaken has confirmed that the existing trunk network has adequate capacity for dry weather flow to 2036. ie. all pipes have sufficient capacity and all SPSs have the required detention storage to meet the EPL requirement of ‘no dry weather overflows’. In terms of wet weather performance, modelling indicates that the network has sufficient capacity to service growth up to 2036 and wet weather overflow performance will not exceed 10 events in 10 years.
- **WRP** – the existing primary and secondary treatment processes at the WRP have capacity up to 4ML/day, which is sufficient to cater for long-term growth (to 2036). The tertiary treatment process has a capacity of 2.7ML/day and therefore will have sufficient capacity to cater for additional flows to meet short-term (2018) growth. Detailed planning currently underway will confirm the timing requirements for an WRP upgrade to meet long-term growth (to 2036), with projected inflows of 3 ML/ day.
- **Farm** – the farm has approximately 175 hectares of potential irrigation area in the approved Scheme, of which approximately 90 hectares is currently irrigated with secondary treated effluent.

Reasons for recent unscheduled discharges

Given that the above information demonstrates adequate uncommitted spare capacity in the Picton Scheme, an investigation into the root cause of the recent unscheduled discharges was undertaken.

During the first ten years of operation (2000-2010), the Scheme was operating in ‘drought’ mode which meant that the dams were maintained in a ‘near full’ state to ensure maximum irrigation of secondary treated effluent to the farm and minimum discharge of tertiary treated effluent to the creek. The 1998 REF (SWTC 1998a) predicted that 75% of the effluent would be used for farm irrigation. The operating strategy implemented by Sydney Water in the first 10 years of operation resulted in 90% of the effluent being used for irrigation. The management of the WRP and farm

has effectively managed the nitrogen and phosphorus that would have otherwise been discharged to the creek, into useful fodder production. However this mode of operation, coupled with higher rainfall in 2011 & early 2012, meant that there was inadequate wet weather storage capacity in the dams which resulted in the four unscheduled discharges.

Revised operating protocol currently in place

In order to reduce the risk of further unscheduled discharges a revised operating protocol has been implemented for the WRP and farm which involves the following:

- The operation of the WRP and farm has been optimised to ensure the water in the dams is kept at a lower level reserving the remainder of dam storage capacity for buffering additional wet weather inflows
- During normal dry weather operation, only tertiary treated effluent, with full nutrient removal, is being discharged into the two storage dams. This will ensure the water in the dams is always of high quality, fit for potential precautionary discharge to Stonequarry Creek
- Precautionary discharges to Stonequarry Creek will occur whenever there is sufficient flow in the creek and the EPL conditions are met.

The results of water balance modelling indicate that unscheduled discharges to date could have been prevented using the revised operating protocol outlined above.

Detailed planning for long-term growth

Whilst there is adequate uncommitted spare capacity within the Scheme to cater for the projected short-term growth (to 2018), Sydney Water is currently undertaking detailed planning to identify the preferred option and timing to service long-term growth (to 2036) in the Picton area.

Submission 2 – NSW Trade and Investment

DPI- Fisheries have no objections to the modification request as proposed provided that all proposed mitigation measures are employed. It is important that the capacity of the existing irrigation area to take effluent is monitored and investigations to expand the irrigation area are triggered on any indication of uncontrolled discharges from the irrigation area, significantly increased soil nutrient levels or significantly changed groundwater levels or quality (as stated on page 6 of the assessment report).

Response

Although the existing Scheme approval allows for irrigation of up to 175 ha at the farm, only 90 ha of the farm is currently being irrigated. Irrigation is scheduled using the soil moisture deficit method which involves the frequent application of low volumes of treated effluent. Meteorological conditions, the particular crop/pasture being grown, its stage of growth and the programming of farm operations all influence when irrigation occurs.

The existing farm operation appears to have had no significant impact on the immediate environment, based on analysis of over 10 years of soil, groundwater and irrigation water monitoring data (Sydney Water 2012). As described in the Assessment Report, Sydney Water will continue to monitor the capacity of the existing irrigation area to take effluent as flows increase.

The detailed planning which is currently underway to identify preferred options to service long-term growth (to 2036) in the Picton area (refer to **Section 3.2** above) will include an investigation into the need to expand the irrigation operations within the already approved area.

Submission 7 – Wollondilly Council

Council notes that one option in planning for a future Picton bypass road involves a route through the site of the Picton STP and associated 'farm'. Council will be further considering options for overall traffic management in the Picton locality and notes that the modification of consent does not prevent potential future negotiations with Sydney Water in relation to a possible bypass route.

Response

Sydney Water is very concerned that Council is considering a road through the Picton WRP and farm to bypass Picton. Such a road would significantly reduce the farm's irrigation areas and thus reduce the overall capacity of the reuse scheme. Sydney Water's preferred outcome would be for an alternate route for the bypass road which does not impact on the Scheme's capacity to service future growth in the area.

Submission 4 – NSW Office of Water

The Assessment Report indicates the extra treated effluent produced by the Picton water recycling plant would be used for irrigation or discharged to Stonequarry Creek in precautionary discharges. The modification proposal needs to address how it fits with the *Water Sharing Plan for the greater Metropolitan Region – Unregulated River Water Sources and Groundwater Sources* from a quantity and quality point of view and additional flow, so the flows are acceptable for the purpose of environmental flows

Response

Sydney Water understands that effluent discharged to Stonequarry Creek from the plant would not be considered a 'water source' under the *Water Sharing Plan for the greater Metropolitan Region – Unregulated River Water Sources 2011*. Part 4(3) of this Water Sharing Plan states that '*... water sources include all water:*

- (a) *Occurring naturally on the surface of the ground shown on the Registered Map; and*
- (b) *In rivers, lakes, estuaries and wetlands in these water sources.*

Given that any discharges from the plant are not naturally occurring, they would not be considered as environmental flows for the purposes of the Water Sharing Plan. This interpretation has subsequently been confirmed with the NSW Office of Water in July 2012.

Submission 1 – NSW Health

We note effluent disposal is by reuse to a 175 ha farm. Section 2.2 of the Assessment Report details the constraints and performance of the scheme to date in relation to this license. We have not received any complaints about the scheme to date. Our main concern would be that emissions to the environment from the disposal farm do not compromise the drinking water catchment.

The Sydney Catchment Authority should be consulted in relation to potential off site environmental surcharges.

The plant and reuse farm are located outside the 'Subject Land' defined on the Sydney Drinking Water Catchment Map (SDWC_014) (Statement Environmental Planning Policy – Sydney Drinking Water Catchment 2011), and which is managed by the Sydney Catchment Authority. Precautionary discharges from the WRP to Stonequarry Creek are permitted under the EPL, with Stonequarry Creek draining to the Nepean River. Water quality in Stonequarry Creek has improved during dry weather since the Scheme commenced operation in 2000, and there has been also a reduction in pollutant levels during wet weather.

The additional connections to the Scheme permitted by the modification would result in increased flows to the WRP, however, they would still be within the approved capacity. Sydney Water will

continue to monitor the capacity of the existing irrigation area to take effluent as outlined in the Assessment Report and the response to the NSW Trade and Investment submission above.

Submission 1 – NSW Health

The operators should ensure compliance with reporting protocols to Ministry of Health for pump station dry weather overflows.

The new SPSs would be designed with sufficient dry weather emergency storage to minimise the risk of overflows during a power failure. This includes storage for approximately 4 hours of dry weather flows and provision of equipment to allow the SPS storages to be pumped out during these periods.

Notwithstanding this, should a dry weather overflow occur at the new SPSs, the Ministry of Health and other relevant authorities would be notified immediately in accordance with the recent changes to Part 5.7 of the *Protection of the Environment Operations Act 1997* (POEO Act).

Submission 1 – NSW Health

The scheme should comply with OEH scheduled premises licensing requirements and any license modifications which may be imposed associated with the proposed expansion of the scheme. The OEH should be satisfied that the existing on-site farm effluent reuse area and environs has the capability to manage the loadings.

Precautionary discharges to Stonequarry Creek from the Picton WRP are regulated by the Environment Protection Licence No. 10555. These precautionary discharges must meet the strict quantity and quality requirements for individual discharge events, as well as the annual load limits for all discharge events. Refer to **Section 3.2** above for a summary of the additional information provided to EPA in response to their submission. On the basis of the additional information supplied by Sydney Water, the EPA indicated their support for the proposed removal of the Scheme boundary, provided it does affect compliance with the existing EPL 10555 (EPA letter to Sydney Water, dated 30 October 2012).

The proposed modification will enable additional connections to the Picton WRP over the short-term (to 2018). The anticipated increase in flows to the treatment plant during this timeframe can be accommodated within the existing uncommitted spare capacity and current EPL 10555 requirements of the Scheme (refer to **Section 3.1** for further details). Detailed planning is currently underway to determine the requirement for any future plant and farm upgrades to cater for long-term growth in the Picton area (to 2036).

3.3 Noise and vibration/ visual amenity

Submission 7 – Wollondilly Council

Council recommends new conditions be imposed on the modified consent to incorporate the following:

- that the detailed design specifications for the upgraded and new Sewerage Pumping Stations (SPSs) shall demonstrate that the area of land to be allocated (by way of easement or property acquisition or similar) is sufficient to contain: appropriate buffer and separation distances, and landscaping to protect the visual and acoustic amenity of adjoining and nearby residential properties. This is to be demonstrated to, and approved by, the consent authority prior to the issue of a Construction Certificate.
- that a Construction Environmental Management Plan (CEMP) be submitted to the consent authority and that the consent authority approve that plan prior to the issue of a Construction Certificate. The CEMP is to include and elaborate on the recommendations of the Picton Sewerage Scheme Boundary Modifications – Noise and Vibration Assessment prepared by Parsons Brinckerhoff dated 20 April 2011 Report Reference No.2117209A Revision B

Response:

The upgraded and new SPSs would be designed to achieve compliance with the relevant Australian Standard (AS 1055) and the *NSW Industrial Noise Policy* (EPA 2000), which would ensure the acoustic amenity of current and future receivers within the growth areas. In addition, appropriate landscaping (eg. planting of shrubs to screen above ground structures where possible within SPS sites) would occur following construction/ upgrading of the SPSs to assist in maintaining visual amenity for current and future residential receivers.

The proposed modification to the Scheme falls under Section 75W of the now repealed Part 3A of the EP&A Act and therefore does not require a modified consent but a modification of the Minister for Planning's approval. Furthermore, no construction certificate would be required prior to the commencement of any construction. However, a CEMP would be prepared prior to the commencement of any construction works. The CEMP would include noise and vibration management and a copy of the CEMP can be provided to Wollondilly Council for their information.

3.4 Corrections / revisions

Submission 7 – Wollondilly Council

Council notes the Growth Areas mapped in Figures 2, 3, 4 and 5 to the Assessment Report prepared by Sydney Water and submitted with the application require correction. The correct "growth areas" are shown in Attachments to this letter. Council has advised Sydney Water direct of the need for these corrections

The Growth Areas mapped in Figures 2, 3, 4 and 5 of the Assessment Report were based on the NSW Department of Planning's 2008-09 Metropolitan Development Program (MDP) Report (DoP, 2010).

Sydney Water has reviewed the more recent information provided by Wollondilly Council and updated the figures from the Assessment Report accordingly. Figure 2 shows the current Scheme, including existing boundary and Phase 1 connections) and Figures 3, 4 & 5 show the proposed modified Scheme, including no boundary and indicative new growth areas provided by Council.

The future growth areas provided by Council will continue to evolve over time, subject to further planning proposals and the MDP cycle. These areas have been labelled 'indicative future growth areas' on the updated figures 3, 4 & 5. The proposed modification if approved, would allow for connection of other properties outside of these indicative growth areas, subject to meeting the criteria outlined in **Section 1.3** of this report and provided the uncommitted spare capacity of the Scheme is not exceeded.

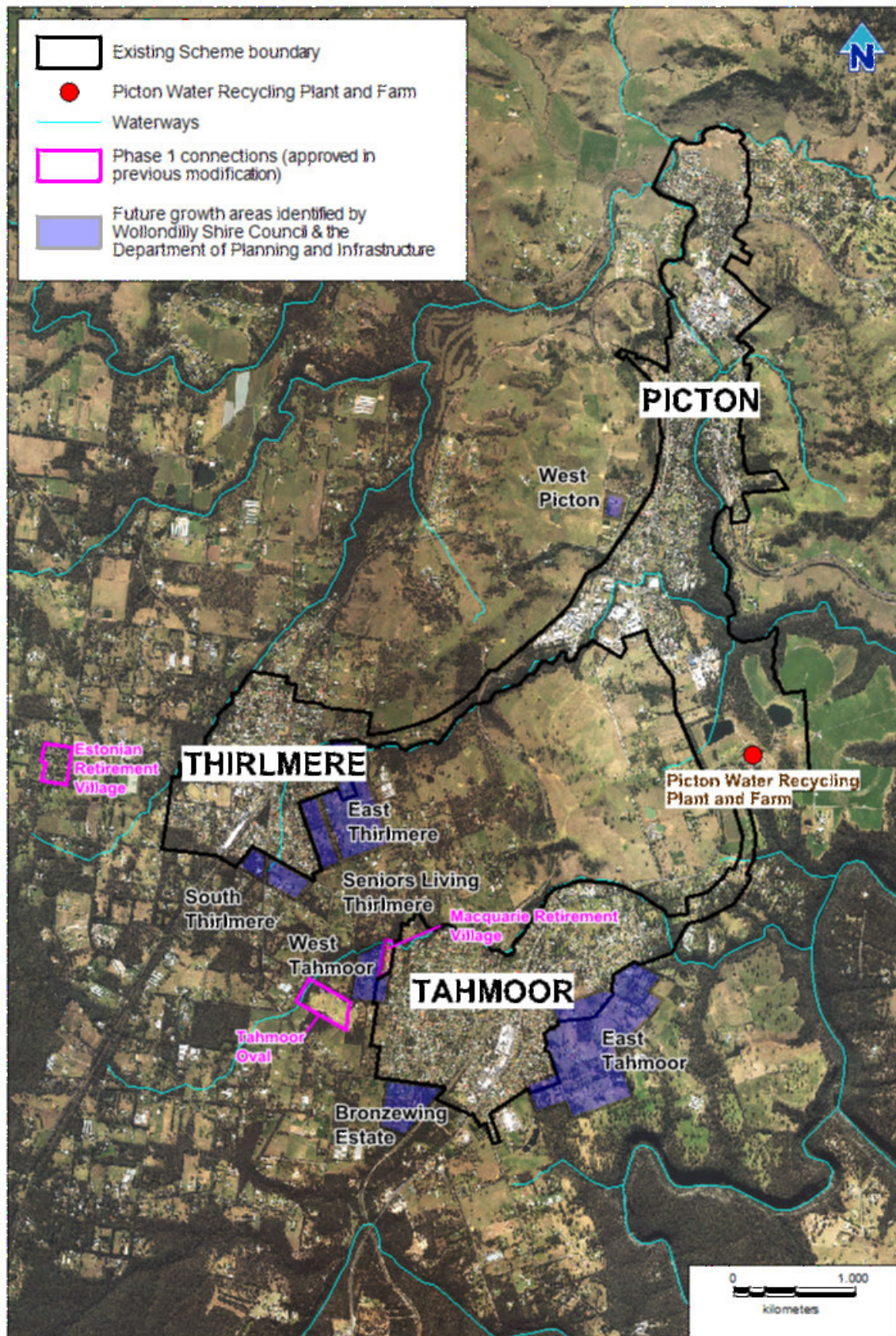


Figure 2 (updated) – Existing Scheme Boundary and Phase 1 connection areas (as approved by previous modification)

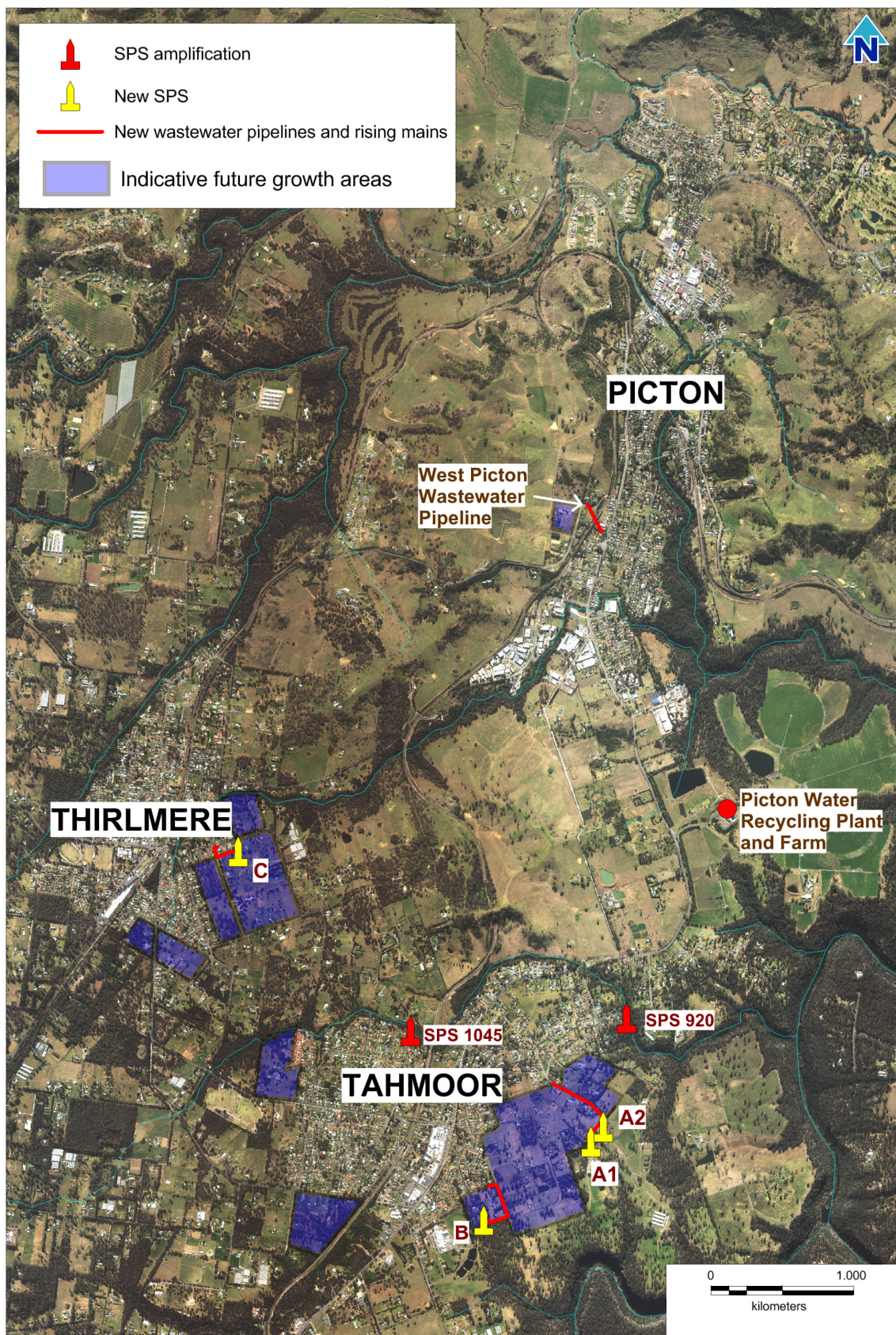


Figure 3 (updated) – Location of likely additional infrastructure associated with modification (showing updated indicative growth areas from latest Council information and no Scheme boundary)

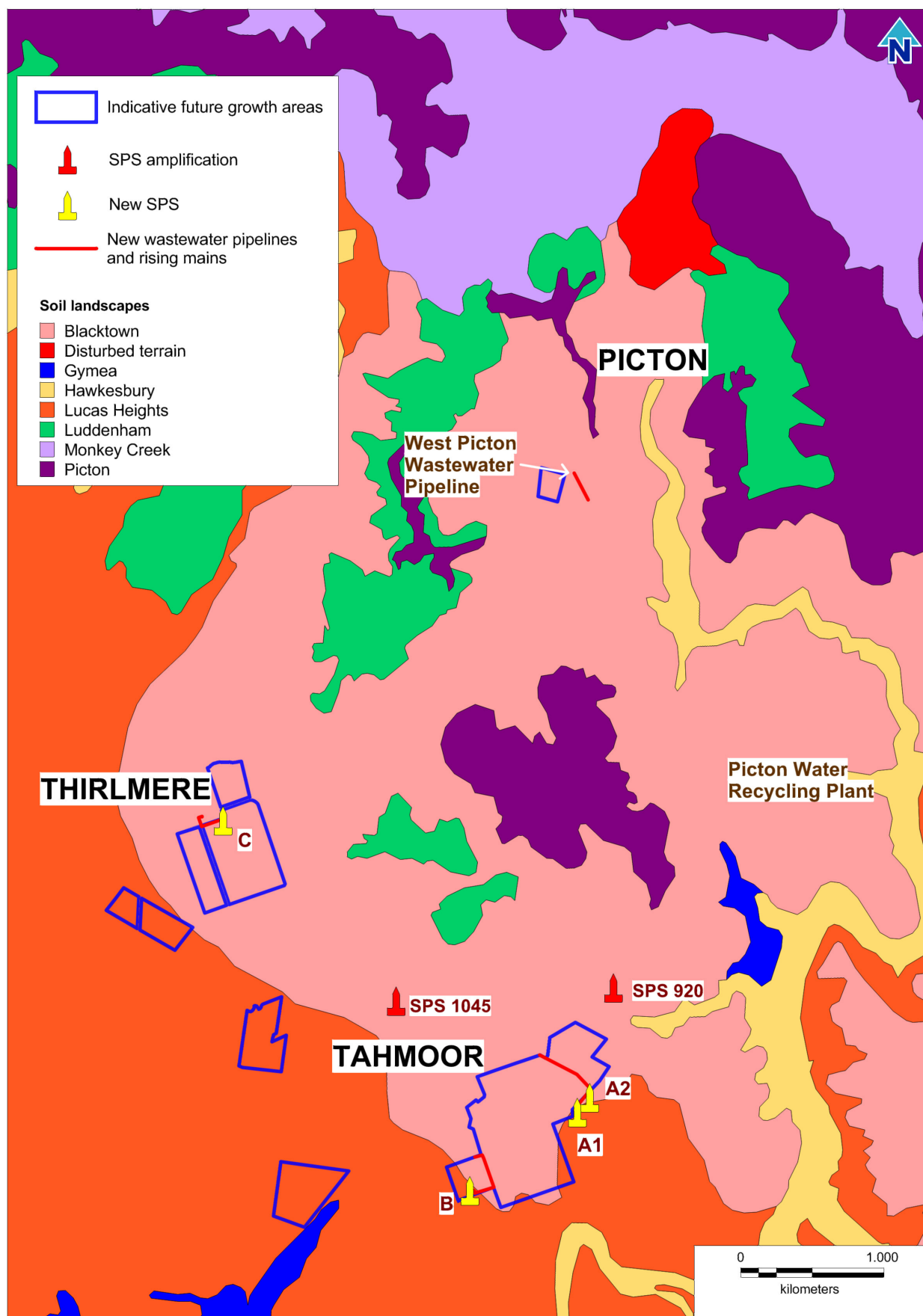


Figure 4 (updated) – Soil landscapes of Picton, Thirlmere and Tahmoor (showing indicative growth areas from latest Council information and no Scheme boundary)

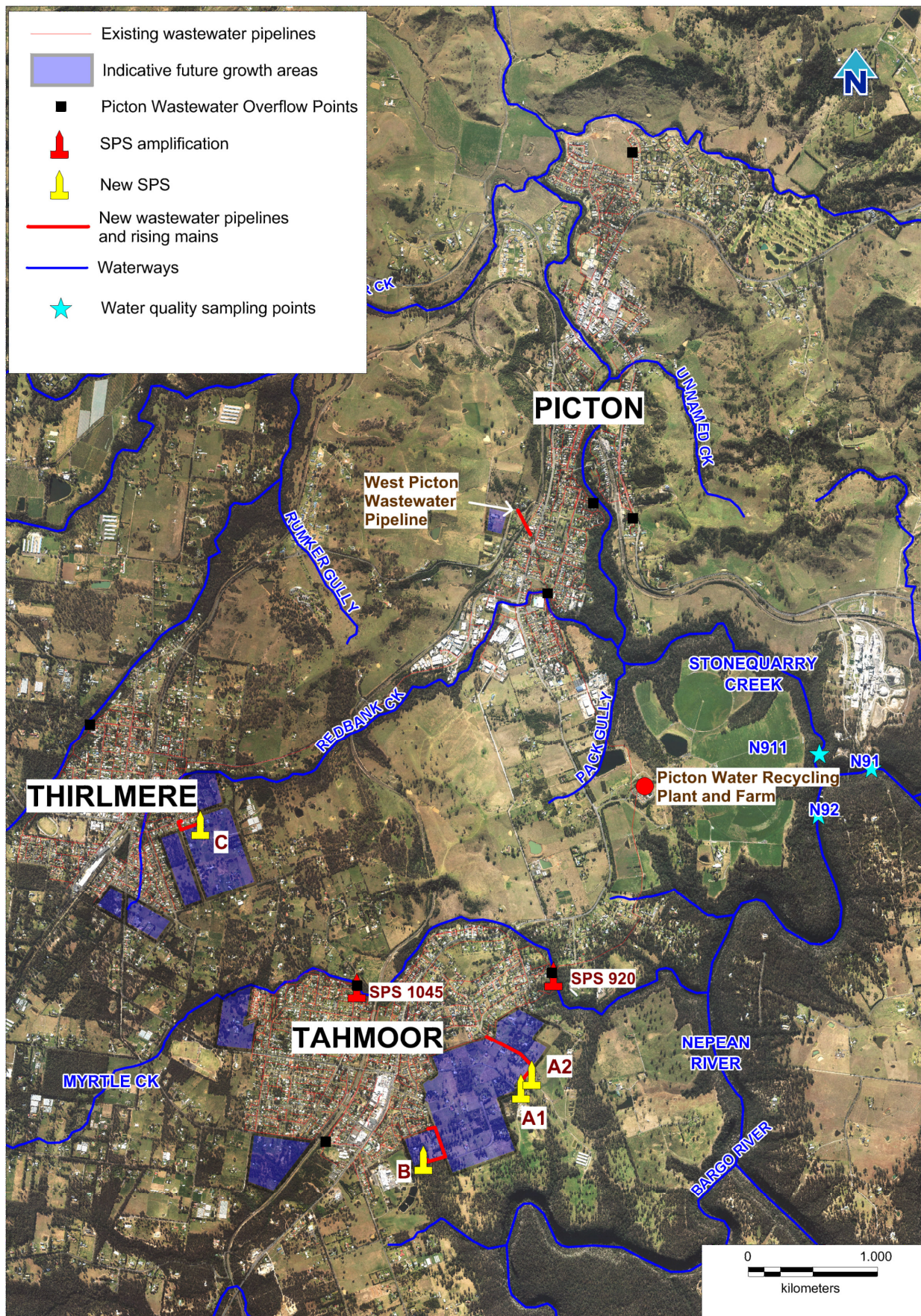


Figure 5 (updated) – Waterways in the Picton Scheme area (showing indicative growth areas from latest Council information and no Scheme boundary)

3.5 Notifying community about construction works

Submission 7 – Wollondilly Council

That a minimum four (4) weeks prior to the commencement of construction works all potentially affected residents and landowners are provided with written information about the Construction Works, CEMP and Construction Noise and Vibration Management Plan (CNVMP) and provided with contact details for directing all enquiries and comments in relation to the construction projects in their locality.

Response:

Sydney Water will ensure that businesses and residents likely to be affected by programmed works are advised at least two weeks prior to works commencing. Details of the proposed work will be provided along with information on how to make further enquiries or comment.

3.6 Flora & Fauna

Submission 9 – HNCMA

The following comments are given on recommended Conditions of Approval (as requested)

- HNCMA gives preference to SPS and rising main C as the preferred project site because this area minimises disturbance to native vegetation, in particular trees. If this site cannot be utilised due to other impacts then HNCMA gives preference to SPS A (A2) then (A1) and lastly to SPS B and rising main C.
- HNCMA supports all recommendations on page 30 of the BIOSIS Terrestrial Flora and Fauna Report for incorporation into conditions of approval

Response:

Sydney Water notes HNCMA's preference for SPS and rising main C as the preferred project site. However as part of the proposed modification, all three SPS and rising mains are likely to be required to allow further connections to the Scheme and as such, Sydney Water is unable to prioritise sites.

The exact impacts on native vegetation would be assessed during detailed design for these assets. Wherever possible, Sydney Water would aim to minimise native vegetation impacts.

Section 5.4.4 of the Assessment Report identifies specific mitigation measures to minimise the impact of the project on Flora and Fauna. These mitigation measures are based on the recommendations on page 30 of the BIOSIS Terrestrial Flora and Fauna Report. Specific mitigation measures relating to flora and fauna will be included in a CEMP to be prepared prior to the commencement of construction.

3.7 Other approvals and mitigation measures to be considered

Submission 4 – NSW Office of Water

The modification proposal may require approval under NSW water legislation. Licensing enquiries should be directed to the Office of Water, Licensing South Branch.

...

Section 3.4.1 of the Assessment Report notes the open trench excavations would typically include dewatering of the trenches, depending on the trench depth and groundwater levels. Section 5.3.4 of the Assessment Report also makes reference to “*groundwater pumped out from excavations*” but no further details are provided on the volume of water etc that is proposed to be pumped

Response

Details on the volume of water that may need to be pumped out during excavations is not available at this time. The amount of groundwater encountered during excavation of trenches would be considered during detailed design of pipelines and managed through implementation of a Construction Environmental Management Plan. However, in general, wastewater pipeline trenches are relatively shallow and would generally be backfilled at the end of the day and therefore groundwater ingress is expected to be relatively minimal.

Submission 6 – Roads & Maritime Services

RMS offers the following comments for your consideration

Should the TMP require a reduction of the speed limit on the regional classified road network, a Speed Zone Authorisation shall be obtained from RMS Traffic Operations Unit (TOU) prior to commencing work within the classified road reserve. The requests shall be submitted to the RMS 10 business days prior to commencing work. It should be noted that receiving an authorisation within this 10 business day period is dependent upon the RMS receiving an accurate and compliant TMP. It should be noted that a Road Occupancy Licence from the RMS is not required for works on regional classified roads

It does not appear that the proposal will affect MR612. If future proposals are likely to impact this road, full details of the proposed works should be submitted to RMS for approval. RMS notes that in accordance with section 138 of the Roads Act, 1993 RMS concurrence is required for any proposed works or structures within the road reserve of a classified road.

Submission 2 - NSW Trade and Investment

Coal Advice has no objections to the Picton Regional Sewerage Scheme Modification however any modifications should be designed and constructed with advice from the Mine Subsidence Board to account for mine subsidence in this area.

Response

Sydney Water would consult and seek concurrence/ approval from the RMS, in accordance with the *Roads Act 1993* if required for any proposed works or structures within the road reserve of a classified road. Any requests for reduction in speed limits would be documented and submitted to RMS for authorisation at least 10 days prior to works commencing.

Section 4 of the Assessment Report identifies the legislative and regulatory framework that applies to the proposed modification and outlines the permits or approvals that may be required for the works.

The proposed works would be located within a mine subsidence area and therefore Sydney Water would seek approval from the Mine Subsidence Board under section 15 (2A) of the Act during the detailed design phase of the project.

Submission 2 - NSW Trade and Investment

If the proposed pipelines bisect current farms in particular intensive agriculture farms – coordination of works with farms harvesting time to reduce production impacts and the replacement of infrastructure damaged or removed will need to be considered. Compensation for loss of commercial agricultural production and removing permanently production areas should form part of the mitigation proposed.

The relevant agricultural issues to consider when preparing and/or assessing infrastructure proposals are set out in the Department of Primary Industries (DPI) Guideline '*Infrastructure proposals on rural lands*'. The guideline also documents recommended project design and mitigation responses.

Response

The proposed rising mains would generally be laid within road reserves and are unlikely to bisect farms. However, the DPI guidelines would be considered during detailed design if any of the pipelines impact on farmland.

Submission 7 – Wollondilly Council

That the detailed design specifications for the upgraded and new Sewerage Pumping Stations (SPSs) shall demonstrate that the area of land to be allocated (by way of easement or property acquisition or similar) is sufficient to contain appropriate buffer and separation distances, and landscaping to protect the visual and acoustic amenity of adjoining and nearby residential properties. This is to be demonstrated to, and approved by, the consent authority prior to the issue of a Construction Certificate.

That a Construction Environmental Management Plan (CEMP) be submitted to the consent authority and that the consent authority approve that plan prior to the issue of a Construction Certificate. The CEMP is to include and elaborate on the recommendations of the Terrestrial Flora and Fauna Assessment Picton Sewerage Scheme Boundary Modifications prepared by Biosis Research dated 23 March 2011 Project Reference No.12711

Response:

As outlined in **Section 3.3** above, a construction certificate is not required for projects approved under Part 3A of the EP&A Act. A CEMP will be prepared prior to construction and would include flora and fauna mitigation measures, based on the ecological assessment undertaken by Biosis as part of the Assessment Report in 2011.

3.8 Reuse

Submission 1 – NSW Health

Finally it is noted that the original scheme included provision for a treated effluent reuse scheme (1.1) which was not constructed. Modern schemes often incorporate some form of reuse and we would encourage this. Again Sydney Water has expertise in this area in relation to water treatment, reuse water quality, risk assessment and plumbing requirements. A reuse scheme would have considerable benefits including reducing loadings on the disposal farm and excess discharge to Stonequarry Creek. If this reuse option is again likely to be reconsidered we would seek to be consulted and have input as standards have changed since the original approval of this scheme.

Response:

The original Scheme did include approval for a treated effluent reuse main to be constructed from the plant to Picton. There are no plans to construct this main at this stage. However, should this be revisited in the future, Sydney Water understands that the recycled water guidelines to be used would be the *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks* (NRMMC, EPHC and AHMC, 2006).

4 Conclusion

The proposed changes to the Scheme would allow Sydney Water to service the future growth areas identified by the DP&I and Wollondilly Shire Council and other areas outside the Scheme boundary in a flexible, cost effective and timely way. There is sufficient uncommitted spare capacity at the plant and farm to receive flows from these areas in the short-term.

This modification requests removal of the defined scheme boundary documented in the original EIS and instead allow future connections based on the following criteria:

- property owners/ developers must be willing to comply with Sydney Water's connection requirements
- property owners/ developers must have an existing relevant planning approval obtained under the *Environmental Planning and Assessment (EP&A) Act 1979*
- when considering connection requests, Sydney Water would ensure that flows from future connections would be less than the approved Scheme capacity of the plant and farm and that the Scheme's Environmental Protection Licence (EPL) conditions can be met.

The DP&I exhibited the modification application and supporting Assessment Report for public information and comment for a period of four weeks in January/ February 2012. Ten submissions were received from State and local government agencies, special interest groups and the local community. The concerns raised in the submissions ranged from support for the modification to concerns about the capacity of the irrigation farm and discharges to the environment from increased flows.

This Submissions Report responds to all the issues raised in the submissions, drawing on the findings of the Assessment Report as well as new information gained since the preparation of the Assessment Report.

The Submissions Report will now be forwarded to the DP&I with a request to the Minister to modify the project's approval under Section 75W (2) of the EP&A Act.

5 References

- Department of Planning (DoP), 2010, *MDP 2008/09 Report: Metropolitan Development Program – Residential Forecasts 2008/09 – 2017/18*, Sydney, 2010
- Environmental Protection Authority (EPA), 2000, *NSW Industrial Noise Policy*, EPA Sydney
- ERM Mitchell McCotter, *Picton Regional Sewerage Scheme: Environmental Impact Statement*, January 1996
- GHD (GHD) 2012, *Report for Detailed Planning for Picton Sewerage Scheme Amplification, Picton WRP Capacity Constraints and Opportunities Assessment*, July 2012
- Natural Resource Management Ministerial Council, Environment Protection and Heritage Council and Australian Health Ministers Conference (NRMMC, EPHC & AHMC), 2006, *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks*, NRMMC, EPBC & AHMC
- State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011*
- Sydney Water, 2008, *Water Related Services for First Release Precincts in the North West Growth Centre – Preferred Project Report*, Sydney Water, Sydney
- Sydney Water, 2011, *Modification to the Picton Regional Sewerage Scheme, Assessment Report*, Sydney Water, Sydney
- Sydney Water, 2012, *Picton Regional Sewerage Scheme: Environmental Impact Prediction Verification Report No. 4 (2005-2010)*, Sydney Water, Sydney
- Sydney Water Transutilities Corporation (SWTC), 1998, *Proposal modifications to the Picton Regional Sewerage Scheme Review of Environmental Factors*, Sydney Water Transutilities Consortium, 1998
- Wollondilly Shire Council 2011, *Wollondilly Shire Council Growth Management Strategy 2011*

Appendix 1 Submissions