EVERYTHING INFRASTRUCTURE

Hunter Water Corporation

Tillegra Dam Project

Stakeholder/Community Workshop Report

31 August 2007

SECURING OUR WATER FUTURE
HUNTER WATER

Table of Contents

Appendices

1. INTRODUCTION

On 13 November 2006, the NSW Government announced a $342 million package of works to secure the water future of the Lower Hunter and the Central Coast Regions. A pivotal part of the plans, subject to obtaining all necessary approvals, is the construction of the Tillegra Dam on the Williams River, approximately 12kms north of Dungog. The proposed dam will impact on a number of local roads, which will require relocation to provide continued access to properties above the dam and also from the Underbank to Quart Pot Creek areas.

The proposed dam will impact on a 15 km section of the existing Salisbury Road, between Tillegra Bridge and Underbank. Following consultation with landholders and other stakeholders, Hunter Water and Consultants GHD Pty Ltd (GHD) identified six road relocation options, which were subsequently placed on public exhibition from 8 May to 6 June 2007. (Refer to the document "*Route Options – May 2007*" in Appendix A).

Community consultation and communication was undertaken in conjunction with the display of proposed route options and members of the community were invited to provide a submission in respect to the proposed route options. In total, 110 submissions were received and a report, the "*Route Options Submissions Report July 2007*" (Appendix B) was prepared. That report analyses the community feedback. In particular it describes:

- The community consultation activities undertaken prior to and during the exhibition period (including those activities undertaken by Hunter Water) to inform the community of the various routes under consideration and the recreational opportunities of the proposed dam;
- Issues raised by the community for consideration in the selection of a preferred road route; and
- The views of the community in relation to recreational activities that could be undertaken on and around the dam.

As documented in the "*Route Options – May 2007"* publication, the process of selection of the preferred route would involve assessment by the Tillegra Dam Community Reference Group and agency stakeholders. For this purpose, a workshop was convened at Dungog on 2 August 2007. This report documents the workshop process and outcomes.

2. WORKSHOP DETAILS

2.1. OBJECTIVES

The workshop was arranged by Hunter Water for members of the Community Reference Group and agency stakeholders to:

- Discuss the six route options; and
- Investigate community and stakeholder views with the objective (if possible) of establishing consensus on the preferred route or routes.

2.2. PARTICIPANTS

The workshop was facilitated by Peter Gemell, supported by Doug Cowan and Natalie Sarian of Everything Infrastructure. The workshop participants included members of the Community Reference Group and stakeholder agency representatives. The attendees are listed in Appendix C.

2.3. PROCEDURE

The workshop involved the following sequence of activities:

- Introduction to the workshop by Hunter Water;
- Self introduction of attendees and statements of individual expectations of the day;
- Briefing on the alignment options including reference to the document "*Route Options – May 2007*". Large scale route maps were provided to assist the discussions;
- Briefing and discussion on the outcomes of the "*Route Options Submissions Report July 2007*";
- Discussion and identification of relevant comparative route evaluation criteria;
- Discussion on eastern section common alignment;
- Discussion on two central section 'high' and 'low' options;
- Discussion on six western section options being (from north to south):
  - High options A, B and C;
  - Low options A, B and C;
- Summary of workshop outcomes;
- Individual feedback on workshop by participants.

The following sections of this report record the workshop discussions.

3. SUMMARY OF PROPOSED OPTIONS

Six potential road relocation options were selected for public comment. They represent three variations of a 'high' road option, and three variations of a 'low' road option.

In developing these options, Hunter Water and GHD liaised with local landholders as well as Dungog Shire Council and government agencies to identify constraints and opportunities within the area.

A road link from Chichester Dam Road at Dusodie was also investigated. A review of current road design requirements and standards indicates that the grades required to climb Shelton's Road would be too steep for heavy vehicles such as milk trucks and cattle trucks. Based on these findings this route was discounted from the options.

Relocation options for the Underbank to Quart Pot Creek area were also identified. The preferred option in this area will be determined in consultation with the affected landowners in that area, along with agency representatives.

Below is a summary of the six options Hunter Water exhibited from 8 May – 6 June 2007. The map in Appendix A provides details of these options.

HIGH ROAD OPTIONS

All high road options traverse the natural ridgeline at a high level giving views to the east of farmlands and to the west of the stored water in the dam. All high road options would have a speed limit of 90km/h for light vehicles (cars, utes etc).

Approximate travel times for all high road options is 12 minutes. All high road options pass through the ridge close to Chichester Gap and will require an additional access road to link to the water for recreation and tourism.

- High Option A (17.9km)

This is the most northern option, connecting back to Salisbury Rd at the same point as High Road Option B.

- High Option B (17.7km)

This option takes an alternate route from High Road Option A down a different ridgeline but connecting back into High Road Option A at the same connection point with Salisbury Road.

- High Option C (17.9km)

This option takes an alternate route from High Road Option A down a different ridgeline. It connects back into Salisbury Road approximately 800 metres south-east of the connection point of High Road Options A and B to the west of the existing Underbank Telephone Exchange.

LOW ROAD OPTIONS

All low road options follow the northern ridgeline from the eastern end of the proposed dam, offering views of both the proposed dam and rural areas.

All low road options deviate from the ridgeline at approximately 6.7 kilometres from the eastern end down a ridge to follow the northern edge of the dam, offering views of the dam and access to the water's edge for recreational users.

They would all have a speed limit for light vehicles of 90km/h for the first 6.7 kilometres, then 80km/h for the remainder of the route. Approximate travel times for all low road options are 13 minutes.

- Low road Option A (18.0km)

This option connects back to Salisbury Road at the same point as High Road Options A and B.

- Low road Option B (18.2km)

This option takes the same route to Salisbury Road as High Road Option C.

- Low road Option C (17.5km)

This option takes a route to Salisbury Road closer to the Williams River embankment. It connects to Salisbury Road at the same point as High Road Option C.

4. ROUTE OPTIONS SUBMISSIONS REPORT

Based on the community feedback received, both qualitative and quantitative, the following conclusions regarding the road options were documented in "*Route Options Submissions Report July 2007*" (Appendix B):

- Overall, the Low Road Options were preferred by 73% of respondents;
- Low Road Option B is the preferred option by the most number of respondents (32%), with Low Road Option C closely following as the second most preferred option (26%);
- Low Road Option C was the most preferred option by those people who use Salisbury Road most frequently;
- The Low Road Options were favoured as they were seen to have the least impact on property, agricultural farmland and the environment; and
- Road safety and impact to residential property and agricultural farmland were the biggest concerns among respondents.

5. REVIEW OF ROUTE SELECTION CRITERIA

The workshop participants discussed the key issues raised by the community and recorded in the '*Route Options Submissions Report'* in the following order of relative importance:

- Road Safety;
- Impacts on private property or local agricultural land;
- Environmental impacts;
- Visual impact;
- Access to recreational facilities;
- Travel times;
- Scenic views.

The outcome of the participants' discussions were as follows:

Road Safety

- Either 80km/h or 90km/h design speeds were acceptable and this is not a differentiating feature;
- Turning movements and sight distances are an issue;
- Emergency access to recreation areas is an issue;
- Fauna kills and accident potential is likely to be greater on higher/more northern routes within forested areas.

Impacts on Private Property or Local Agricultural Land

- Separation of portions is an issue;
- Impact on dairy flats is an issue for southern route options at the western end.

Environmental Impacts

- Fauna kills are likely to be greater on northern/higher route options;
- Clearing of trees is likely to be greater on northern/higher route options.

Visual Impact

- Visual impacts were not considered to be a significant issue in selection of the route.

Access to Recreational Facilities

- Safe and functional access to future recreational facilities is an issue affecting the high and low options in the central section. An issue with the 'high' route is that an intersection for a road to

provide recreational access would be steep which is a safety concern for trucks and cars towing caravans or boats.

Travel Times

- Travel time differences for through traffic was not considered to be a significant issue, except in respect of those required to travel to the Underbank and Quart Pot Creek areas.

Scenic Views

- Scenic views were not considered to be a significant issue in selection of the route.

In addition to review of the above issues arising from the *Route Options Submissions Report*, the workshop participants raised further issues.

Safety

- The fires of 1994 and 2002 burned bushland to the north and northwest of the routes. The fires were stopped at the ridge line, the location of the high route options. The advice to the workshop from the local brigade is that the low route options are significantly better for fire service access and more likely to remain safely accessible during fire events.

Fairness and Equity

- The workshop participants considered that fairness and equity should be considered in route selection.
- The participants were also of the view that enhancement to private land access was not an issue to affect route selection.

Further, the participants recognised a number of issues that needed to be considered, regardless of the route selected. These included:

- The likelihood of increased traffic volumes;
- Fog potential arising from the dam;
- The need for road durability ie scour etc.
- The need for an alternative cemetery site;
- The need for a new fire station site;
- The need for a potential site for Munni House;
- The desire for (at least) equivalent overtaking opportunities and for lay-bys for breakdowns;

- Accessibility for emergency services; and
- Reduced driver security due to distance from houses.

6. WORKSHOP OUTCOMES

6.1. EASTERN SECTION

The workshop participants discussed the eastern section alignment, which is common to all options. The participants agreed that this was the appropriate feasible alignment. The participants acknowledged that the tie-in details with the existing Salisbury Road, downstream of the proposed dam wall, were still to be finalised.

6.2. CENTRAL SECTION

The central section consists of the two route alternatives, the 'high' route to the north along with ridge line and the 'low' route to the south along the south facing slope above the proposed dam storage area. The participants' discussions in respect of each criteria were as follows:

Road Safety

The 'low' route was preferable for connections to recreational areas because of the reduced approach slope of connecting roads and likely greater sight distances.

Impacts on Private Property and Local Agricultural Land

The 'low' route is contained within Hunter Water land. The 'low' route has minimum impact on private property while the 'high' road dissects three private land lots, possibly enhancing their accessibility.

Environmental Impacts

The 'high' route, along the ridge line will require more tree clearing and likely result in greater potential fauna impacts (than the 'low' route) because of its proximity to natural habitats. It was reported that Karuah Local Aboriginal Land Council had advised that the 'high' route also has a greater potential for impacts on Aboriginal heritage and artefacts.

Access to Recreational Facilities

The 'low' route provides greater connectivity to recreational opportunities due to its proximity to the water storage area.

Safety

As documented in Section 5, the 'low' route provided a far greater degree of safety and accessibility in the event of bushfires. The 'high' route is likely to have a greater risk of fire or lightning strike cutting power and telecommunication services to residents above the dam.

Fairness and Equity

There was little difference between the 'high' and 'low' routes in terms of fairness and equity except that Telstra advised that the 'low' route would facilitate telephone connectivity. The 'low' route would be relatively easier to construct and the provision of pollution traps would also be simpler.

In response to the above issues, the workshop participants unanimously agreed that (consistent with the findings of the '*Route Options Submissions Report*') the 'low' route was endorsed for the central section.

6.3. WESTERN SECTION

So as to investigate all possible options, all six route options for the western section (refer to the '*Route Options'* document) were discussed. These are titled (from north to south):

- High A
- High B
- High C
- Low A
- Low B
- Low C

For the purpose of the analysis, it was assumed that the preferred 'low' route (in the central section) could be connected to the 'high' route options (in the western section) along the alignment of the Chichester Gap Road.

6.3.1. High Road Options

As the discussion progressed in respect of the six options, it became apparent to the participants that the inherent disadvantages of the 'high' route options clearly outweighed any potential benefits. All the 'high' road options are located in areas of difficult grades and ridge terrain, and all are in unsuitable locations in terms of brigade and public thoroughfare in the event of a bushfire. The 'high' options generally disadvantage the Quart Pot and Underbank residents by increased travel distance. The 'high' options were also not favoured in terms of constructability or utility services installations.

On this basis, the participants determined that the 'high' road options were to be discarded and that only the 'low' road options were to be comparatively evaluated.

6.3.2. Low Road Options

Road Safety

Road safety was not considered to be an issue in evaluating the route alternatives in this section, however it appears that the 'Low B and C' routes provide better access to Salisbury Road on a long straight section.

Impacts on Private Property and Local Agricultural Land

'Low A' divides a number of paddocks and does not follow property boundaries; its length creates a greater footprint and has greater property access requirements.

'Low B' segregates some small land areas where it diverts from 'Low A' and occupies a length of riverfront dairy land at the approach to Salisbury Road.

'Low C' segregates two paddocks (which may be able to be mitigated by land swap negotiations), it runs along the top of the 'underbank' (a barrier to the river for stock and therefore the road would be of little further impact) and, on the alignment shared with 'Low B', it occupies a length of waterfront dairy land at the approach to Salisbury Road.

Environmental Impacts

Each of the three 'low' routes cross the Williams River and the river crossing design will need to deal with both flood immunity and upstream afflux.

Access to Recreational Facilities

Access to recreational facilities are not affected by these options.

Safety

The western end of 'Low A' is in a location of greater risk to closure to the public in the event of a bushfire. 'Low B' is marginally more risky than 'Low C'. The 'Low C' route is most beneficial in terms of emergency service access and public thoroughfare.

Fairness and Equity

'Low A' disadvantages the residents of Quart Pot and Underbank due to greater travel distances. The utility services prefer 'Low C' for constructability and access.

In response to its considerations and discussions, the workshop participants unanimously agreed that (consistent with the findings of the '*Route Options Submissions Report*') 'Low C' is the preferred route for the western section, subject to:

- Satisfactory arrangements being made with the owners of the affected dairy land near Salisbury Road to preserve the farming viability;
- Consideration being given to providing for stock access to the river in the dairy flat area;
- Detailed alignment design mitigating land impacts; and
- Flooding being addressed in the design.

7. SUMMARY OF WORKSHOP OUTCOMES

The workshop participants generated the following outcomes:

- Eastern Section – the eastern alignment, common to all options was agreed by participants to be the appropriate solution, subject to resolution of the connection with the existing Salisbury Road at the southern extremity of the new alignment.
- Central Section – both the 'high' route and the 'low' route were discussed, particularly in respect of the comparative criteria. The workshop unanimously agreed that the 'low' route was preferable to the 'high' route. In particular, the 'low' route provided:
  - superior fire safety outcomes;
  - reduced environmental impacts;
  - minimum effects on private landowners; and
  - superior connectivity to recreation opportunities.
- Western Section – all six western alternatives were discussed in terms of connecting with the 'low' route alignment for the central section. The 'high' road options were discarded due to concerns with fire safety, greater length and property impacts, more extreme terrain and increased travel time for Quart Pot area residents. The workshop participants agreed that 'Low C' route option is slightly preferred over the 'Low B' & 'Low A' route options, subject to resolution of the alignment on the dairy flat near Salisbury Road. In particular the 'Low C' route option provided:
  - superior fire safety outcomes;
  - minimises land impacts; and
  - reduced travel times for Quart Pot area residents.
- Common Issues – the workshop participants identified particular issues to be resolved, regardless of the selected route solutions:
  - increased traffic due to recreational activities;
  - road durability;
  - pollution from spillage;
  - potential for fog;
  - driver security, there being no residences on the new alignment;
  - emergency services access;
  - selection of a new cemetery site;
  - selection of a new fire brigade site; and
  - selection of a potential site for Munni House.

- At the conclusion of the workshop, the participants each acknowledged that they had been provided sufficient opportunity to express their views and that those views had been properly addressed.

8. CONCLUSIONS

- The workshop participants resolved that the 'Low C' route option is slightly preferred over the 'Low B' & 'Low A' route options, giving consideration to the community survey results which demonstrated a preference to the Low Route options (as identified in the '*Route Options'* document). It was resolved that further consideration should be given to some minor adjustments around the dairy flat area where the 'Low' route options connect back to Salisbury Road to minimise landowner impacts.

APPENDIX A

ROUTE OPTIONS – MAY 2007

APPENDIX B

ROUTE OPTIONS SUBMISSION REPORT – JULY 2007

APPENDIX C

LIST OF ATTENDEES

TILLEGRA DAM PROJECT

STAKEHOLDER/COMMUNITY WORKSHOP

2ND AUGUST 2007

NAME	ORGANISATION
Nicole Holmes	Hunter Water
Glen Robinson	Hunter Water
Helen Vorlicek	Hunter Water
Ian Joliffe	GHD
Glenn Wall	Dungog Shire Council - Mayor
Greg Fenwick	Dungog Shire Council
James Hopson	Williams River Water Users Association
Brett Peterkin	Community Reference Group (CRG) – Chairman
John Rapson	Member of CRG – Dungog Information & Neighbourhood Service
Owen Nicholson	Member of CRG – Above Dam Representative
Des Hopson	Member of CRG – Above Dam Representative
Dave Watson	No Tillegra Dam Group
John Lee	Emergency Services (Bendolba – Salisbury Bushfire Service - Captain)
Marion Stuart	Member of CRG - Dungog Tourism Advisory Committee
Anne McDonald	Member of CRG - inundation area representative
Kate Murphy	Member of CRG - Chamber of Commerce
Maureen Kingston	Member of CRG – Dungog Historical Society
Ray Munt	Telstra
Eddie Bush	Telstra
Scott Jeffries	Department of Planning
Joanna Bakopanos	Department of Planning
Doug Cowan	Everything Infrastructure
Peter Gemell	Everything Infrastructure

Apologies

NAME	ORGANISATION
Greg McDonald	Dungog Shire Council - Executive Manager Infrastructure and Assets
Adam Sneddon	GHD