

Appendix S

Consultation and submissions report

Environmental impact statement

Community Feedback

Consultation and Submissions Report on the Draft Environmental Impact Statement (ACT) & Environmental Assessment (EA) for the Murrumbidgee to Googong Water Transfer

December 2009



Bulk Water Alliance



ACTEW in partnership with ActewAGL

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1 Executive summary

The Murrumbidgee to Googong Water Transfer (the Project) is an important project in ACTEW Corporation's (ACTEW) integrated strategy of diversified water infrastructure to ensure a secure and sustainable water supply for the ACT and region.

The options to secure the region's water supply have been the subject of discussion and planning by ACTEW and the ACT Government for many years and therefore community discussion and associated media attention has extended over a long period, including discussion surrounding the Murrumbidgee to Googong Transfer project.

This document details the stakeholder and community engagement activities undertaken during the consultation on the draft Environmental Impact Statement and Environmental Assessment (EIS/EA) for the Murrumbidgee to Googong Transfer Project and reports on the outcomes of the consultation.

Consultation

Consultation on the project extends back to 2005 when ACTEW released the report 'Future Water Options for the ACT Region' in which the project was recommended as one of the preferred options to secure the ACT's water supply.

As the project has been further refined and the route options refined, targeted community consultation has occurred particularly along the selected route. Landowner and community input has been factored into the currently alignment of the pipeline, demonstrating how consultation with the community has contributed to the project and planning, design and approval phases.

In January 2008 ACTEW finalised a Community Engagement and Stakeholder Management (CESM) Plan which outlines a model of continuous community consultation from 2008 through the approvals, construction and rehabilitation phase of the project. This plan is revised on a regular basis and is implemented through a dedicated Community Engagement and Stakeholder Management team.

Building on ACTEW's commitment to continuously consult with the community, the preparation of the draft EIS/EA and associated exhibition period have included a range of community engagement activities.

Activities during the consultation period were in addition to the formal statutory requirements to display the draft EIS/EA for public comment (to 'publicly notify'). ACTEW actively sought to draw the community's attention to the release of the documentation, provided the information in a user friendly way and encouraged community feedback and contribution to the process of preparing the final EIS.

The draft EIS/EA consultation period was promoted through direct mail, a media campaign and several community presentation and information sessions. It also involved a dedicated contact point via the Water Security information line and via email and the website.

Representations received during the consultation period covered a variety of issues, the most common issues raised were:

- Impact on Burra Creek;
- Alternative outlet option;
- Construction issues;
- Noise;
- River flow;
- Rehabilitation; and
- Heritage.

A total of 83 submissions were received by the NSW Department of Planning and the ACT Planning and Land Authority. Of these 25 submissions were duplicates that were submitted in both jurisdictions.

More than half of the submissions received were from individuals, with 10 submissions from government agencies and 12 from community organisations.

17 written submissions were received from directly affected landholders in response to the draft EIS/EA. The most common comments from these landholders were to support the alternate outlet location and express concerns about the potential noise associated with air valves along the route.

The consultation specifically on the draft EIS/EA forms part of the ongoing community engagement program that will continue throughout the life of the project. If the project proceeds, the continuing community engagement program will feature regular community updates through the ACTEW website, media and newsletters. ACTEW will continue to provide directly affected landholders with an opportunity to ask questions and seek further information through telephone, email and community meetings.

Planning pathway

The final Environmental Impact Statement (EIS) for the Project will provide an environmental framework for approval within the ACT and NSW jurisdictions outlining ACTEW's commitments with regard to the potential impact of this Project.

The EIS will form an attachment to inform the development application (DA) that will be submitted by ACTEW to ACTPLA as part of the next phase of planning approvals. This development application will also be available for public comment as required by the *ACT Planning and Development Act 2007*. ACTEW will be encouraging community groups and key stakeholders to provide further comment on the project at this stage.

The project has been referred to the Commonwealth Department of Environment, Water, Heritage and the Arts for consideration under the *Environment Protection and Biodiversity Conservation Act 1999*. The Commonwealth has deemed the project a Controlled Action to be assessed by a Public Environment Report. In preparing and seeking approval for the Project, ACTEW will continue to involve the community and key stakeholders and will place the draft Public Environment Report on public exhibition as required by the Commonwealth.

2 Introduction

2.1 Background

Inflows into the drinking water storages within the ACT and region have been below average for the last 15 years. The Canberra and Queanbeyan communities have been in water restrictions since mid-December 2002.

One of the key challenges for the ACT and region in the short and long term is to build additional, diversified water supply assets that can cope with reduced average inflow into the reservoirs and longer, more frequent droughts, without having to impose higher level water restrictions for extended periods.

In 2007 the ACT Government endorsed the diversified portfolio of water supply security measures developed by ACTEW be implemented. The integrated strategy of diversified water infrastructure investments would increase the security of supply, increase the efficiency of current water storage and treatment facilities, supplement inflows into Googong Reservoir and access a source of water that is not wholly dependent on rainfall in the ACT region, the Tantangara Transfer project.

These options include the Murrumbidgee to Googong Water Transfer, enlargement of the Cotter Dam, the Tantangara Transfer Project and to offset greenhouse gas emissions associated with the construction and operations of these projects.

2.2 Murrumbidgee to Googong Water Transfer

The project involves construction and operation of infrastructure required to transfer approximately 100ML/day of water a distance of approximately 12km from the Murrumbidgee River to Burra Creek which flows into Googong Reservoir. The infrastructure required to transfer the water includes an intake/low lift pump station; a high lift pump station; an underground pipeline; an outlet structure and a power supply.

The outlet is located in the vicinity of the low level crossing on Williamsdale Road near the junction of Burra and Williamsdale Roads. This is a modified outlet location which is 3.2km upstream from that previously proposed in the draft EIS/EA. The new outlet location has been adopted as a result of community feedback received prior to and during the public exhibition period of the draft EIS/EA.

The transferred water will discharge through a concrete topped structure stretching approximately 12m along the creek bank with a 250mm grated opening.

A mini-hydro power generation facility would be located close to the Burra Creek outlet location, above flood level. The mini-hydro power generation facility will largely be housed underground and would recover almost 20% of the total electricity used for the pumping of the water.

2.3 Community consultation program

The formal consultation period associated with the public exhibition of the draft EIS/EA was conducted from 17 August to 18 September 2009. NSW also undertook to accept late submissions until 2 October 2009. This period of formal consultation was a continuation of regular and on-going engagement by ACTEW with the community and key stakeholders on issues relating to water consumption and associated long-term water security for the region. Engaging with the community during the approval phase of the project was a key component in the development of a sound EIS to support the planning for construction of the Murrumbidgee to Googong Water Transfer and was consistent with ACTEW's continuing commitment to engage continuously with the community beyond the statutory requirements.

3 Consultation framework

The current Community Engagement and Stakeholder Management (CESM) Plan (2009-2010) formed the basis for activities undertaken throughout the formal consultation period associated with the public exhibition of the draft EIS/EA.

The 2009 – 2010 CESM Plan is based on a model of continuous community engagement during all phases of the project. Key to this plan is the commitment to the following principles which include;

- Having a clearly stated decision making process.
- Identification of key stakeholders and interested parties (*see Appendix C – Stakeholders*).
- Timely engagement of stakeholders for continuous project improvement and development.
- Representativeness of stakeholders.
- Responsiveness to stakeholders;
- Provision of information; and
- Evaluation.

The consultation program for the Murrumbidgee to Googong Water Transfer Draft EIS/EA exceeded the statutory requirements for consultation as set out in the ACT Planning and Development Act 2007 and NSW Environmental Planning and Assessment Act 1979. Based on the principles detailed above the consultation program sought to:

- Obtain early community and stakeholder support to facilitate the achievement of the project's objectives.
- Ensure all stakeholders are identified and engaged with in an appropriate, timely and consistent manner, and their needs and interests recognised.
- Understand issues and concerns and resolve them in an appropriate manner; and
- Provide stakeholders with information about any construction and/or environmental impacts that will affect them, and create awareness of mitigation measures that will be in place to minimise these impacts.

The feedback from both the community and other key stakeholders has been considered in preparation of the EIS and ACTEW's responses to these comments will be communicated clearly back to stakeholders who have contributed to the process.

3.1 Purpose

The purpose of the consultation on the Murrumbidgee to Googong Water Transfer draft EIS/EA was:

- To provide information on the draft EIS/EA to the general public and key stakeholders in the project ;
- To provide opportunities for the community to provide feedback on key issues that should be considered as part of the draft EIS/EA process;
- To ensure this feedback was comprehensively and accurately recorded for consideration in preparing the final EIS;
- To ensure that the final EIS appropriately reflects community and key stakeholder concerns;
- To meet and where possible exceed the statutory requirements and encourage community participation in the statutory process.

3.2 Statutory Consultation

ACT

The statutory requirements for the preparation of an EIS in the ACT are described in the *Planning and Development Act 2007 (the Act)* and the *Planning and Development Regulations 2008 (the Regulations)*.

With respect to consultation, the Act requires the following steps:

- The proponent prepares a draft EIS to address the requirements as stipulated in the scoping document provided by the planning authority;
- The draft EIS is lodged with the planning authority;
- The draft EIS is put on public display by the planning authority with agencies, stakeholders and the community given the opportunity to comment on the project, the possible impacts and the proposed mitigation measures or controls;
- The proponent prepares a final EIS and a consultation report that responds to all of the issues raised during public display; and
- The EIS is considered by the planning authority and the Minister. There are opportunities for the authority to seek responses, or for the Minister to conduct an inquiry about the EIS.

NSW

Part 3A of the *NSW Environment Planning and Assessment Act 1979* applies to those parts of the project located in NSW. Section 75H of the Act outlines the environmental assessment and public consultation requirements. The act requires the following:

- The proponent prepares an environmental assessment in accordance with the Director-General's requirements which is lodged with the Department;
- Once the environmental assessment has been accepted by the Director-General, the Director-General makes the environmental assessment publicly available for at least 30 days;
- During the 30 days, any person (including a public authority) may make a written submission to the Director-General in relation to the matter;
- The Director-General provides copies of all submissions received in relation to the matter to the proponent;
- The Director-General may then require the proponent to submit to the Director-General a response to the issues raised in the submissions received, a preferred project report that outlines any changes to the project to minimise its environmental impact; and any revised statement of commitments;
- If the Director-General considers that significant changes are proposed to the nature of the project, the proponent may be required to make the preferred project report available to the public.

Commonwealth

The project triggered the requirement for referral to the Commonwealth Department of the Environment, Water, Heritage and the Arts, under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act)*.

A referral was lodged with the Commonwealth Government on 6 October 2009 and was placed on public exhibition to the Department of the Environment, Water, Heritage and the Arts on 9 October 2009. On 20 November, the Commonwealth advised ACTEW that the project had been declared a controlled action that would be assessed by a public environment report for approval under the *EPBC Act*.

ACTEW will be preparing the Public Environment Report for lodgement in the first quarter of 2010. Once a draft has been lodged this will be placed on public exhibition for community comment.

4 Consultation strategy

The community consultation program for the draft EIS/EA was developed within the broader framework of The Murrumbidgee to Googong CESM Plan. If the project is approved, this plan will guide the continued community involvement and stakeholder engagement throughout the life of the project.

The plan identifies activities that will facilitate a flow of information between ACTEW and community and government partners throughout the life of the project. The plan is recognised as an iterative process that continues to be shaped and adapted to reflect the needs of the community and key stakeholders as the partnership grows and changes and new issues emerge. The ongoing review and refresh approach to community engagement and stakeholder management is demonstrated by the diagram below.

Community engagement and stakeholder management (CESM) planning cycle



Figure 1 Community engagement and stakeholder management planning cycle

The consultation program for the Murrumbidgee to Googong Transfer draft EIS/EA was an integral component of the community engagement and stakeholder management planning cycle and built on relationships with the community and specific stakeholder groups to ensure an ongoing engagement with the community.

4.2 Stakeholder groups

The consultation strategy for the draft EIS/EA was developed with consideration for key stakeholder groups and consultation activities were directly targeted to these groups as detailed in Appendix C – Stakeholders.

Within the context of the broader community engagement program and the statutory requirements for public exhibition of the draft EIS/EA by the ACT and NSW Governments, ACTEW recognised that there are a

number of stakeholder groups that are particularly important. While the importance of communicating directly with the general public was recognised, it was also considered important to engage those groups that had a particular interest in, or had the potential to be directly impacted by the project.

These key stakeholder groups were identified and targeted to ensure they had an appropriate opportunity to comment and to allow their comments to be taken into consideration when preparing the final EIS. These stakeholder groups were broadly defined as:

- Statutory authorities;
- Representative Aboriginal organisations and land councils;
- Individual landowners;
- Commonwealth, state and territory government agencies;
- Industries;
- Media; and
- Community groups
 - environment groups
 - local resident groups
 - local interest groups
 - recreational user groups
 - non-local interest groups

4.3 Consultation activities

Consultation activities were developed to maximise awareness among the general public and stakeholder groups of the opportunity to contribute to the approval process by commenting on the draft EIS/EA. These activities were complemented by an advertising and media campaign, across radio, television and newspaper, to raise broad awareness of the draft EIS/EA and the opportunity to comment.

The consultation activities undertaken during the consultation on the Murrumbidgee to Googong Water Transfer draft EIS/EA are outlined in detail in Chapter 4 of the EIS and are listed below:

- draft EIS/EA publications, including a boxed set of the three publications, user-friendly CD and an easy to read summary document.
- Project information kit including updated fact sheets providing information on matters such as construction, environmental commitments, Murrumbidgee flows and how the community could have their say.
- Direct mail campaign;
- Stakeholder group or one-on-one meetings and presentations;
- Advertising;
- Five community drop-in sessions;
- ACTEW website 'Have your say' pages; and
- ACTEW email and telephone hotline number.

These activities were additional to the statutory public notification and call for submissions that were required by the ACT and NSW Governments as part of the process of public exhibition.

4.4 Complementary consultation

In addition to the specific consultation on the draft EIS/EA for the Murrumbidgee to Googong Water Transfer, on-going CESH activities have been conducted since the project formally commenced in late 2007, during which time over 500 contacts have been recorded. In relation to the draft EIS/EA these have included:

Potentially affected land owners liaison

Once the preliminary route for the pipeline was developed initial contact with potentially impacted landholders occurred in February 2008. Since that time continued liaison have occurred with landholders with the purpose of ensuring they are fully informed about the nature of the project in relation to their land holding and that they understand ACTEW's access and acquisition needs and the associated compensation. Discussions with landholders are also aimed at ensuring that the concerns of landowners during construction, rehabilitation and operation are addressed. Key features of the continued liaison with land owners include:

- Initial introductory meetings with each land owner;
- Continued communication throughout 2008 and 2009 to gain access for technical staff and specialists to conduct studies related to refining the route alignment and preparation of the draft EIS/EA;
- From early 2009 draft agreements were provided to the landowners with specific details of the easements and access requirements of ACTEW. This included recommendations to the land owners to seek legal advice and independent property valuations; and
- From July 2009 negotiations have been occurring with regard to property valuations and potential compensation to the land owners.

Land owner liaison will continue throughout the approval, construction and rehabilitation phases of the project to ensure that timely information are provided to all and that land owners concerns are addressed as they arise.

Community meetings

Several community meetings have been held in relation to this project over the past two years. Community meetings or drop-in sessions were held in March 2008, December 2008 and March 2009 in addition to the five sessions held during the draft EIS/EA public exhibition period.

Government liaison

Since early 2008, ACTEW has undertaken extensive liaison with the relevant government agencies to provide timely information and facilitate any cross-border issues that may arise from the project extending across three jurisdictions. In addition to the NSW Planning Focus meeting which was held in September 2008, an on-going multi-jurisdictional forum has been established to allow cooperation across the three jurisdictions involved in approving this project. The multi-jurisdiction forum involves representatives from the NSW Department of Planning, ACT Planning and Land Authority and the Commonwealth Department of Environment, Water, Heritage and the Arts and first met in February 2009.

Preparation of the Director General's requirements and ACT Scoping Document

Prior to the development of the draft EIS/EA, ACTEW provided briefings to a range of government agencies to enable those agencies to participate in the scoping of the EIS/EA as detailed in the Director General's requirements and the ACT Scoping Document. 16 Government agencies from across the ACT, NSW and the Commonwealth were briefed at this time. Details of these meetings and the issues raised are detailed in Chapter 4 of the EIS.

Preparation of the draft EIS/EA

As guided by the Murrumbidgee to Googong Water Transfer CESH Plan, a range of meetings with community groups, individuals and government agencies have occurred since project inception (including during preparation of the draft EIS/EA and prior to it being lodged for public exhibition. This included meetings and contacts with government stakeholders, local community groups, landholders and members of the public, with 604 total events and 1431 contacts with stakeholders (358 distinct). A breakdown of these events is outlined in Table 1.

Table 1 Events Since Project Inception (1 January 2008 – 14 August 2009)			
Event Type	Events	Stakeholders	
		distinct	total
Correspondence out	162	199	679
Correspondence in	118	71	132
Call out	99	61	105
Meeting	94	178	258
Call in	41	30	41
Property visit	31	23	38
Call in - info line	21	19	21
email - info line	18	16	18
Event	7	7	8
Information session	7	45	54
ACTPLA and NSW submissions	4	53	75
Complaint	2	2	2
Total Events	604	358	1431

In addition to the meetings generated by the project team, several of the technical consultants involved the development of the draft EIS/EA undertook targeted consultation with community groups, businesses and government agencies in the preparation of their reports. In particular this included the socioeconomic analysis and the cultural heritage survey where the specialists met with a range of community organisations and individuals in the course of preparing their assessments.

4.5 Promotion

To maximise the success of the draft EIS/EA consultation program it was essential that the community was well informed about the Murrumbidgee to Googong Water Transfer and in turn the release of the draft EIS/EA for public comment. A range of promotional opportunities were adopted to raise awareness of the consultation program across the broader community.

Advertising and media

There was a range of advertising and media announcements made to promote the draft EIS/EA public exhibition period. This is summarised in the following table.

Table 2 Advertising and media during the draft EIS/EA public exhibition period

Media activity	Date	Print	Radio	TV
Water Matters Ad - promoting information sessions	11 August 2009	Chronicle		
Advertising - promoting information sessions	19 August 2008	Bungendore Mirror		
Advertising - promoting information sessions	21 August 2009	Queanbeyan Age		
Advertising - promoting information sessions	22 August 2008	Canberra Times		
Media release - promoting information sessions	25 August 2009		2CC ABC 666	
Advertising - promoting information sessions	1 Sept 2009	Palerang Bulletin		
Media release - announcing 2 weeks left in the public exhibition period	1 Sept. 2009		2CC	
Media article - advising the extension of the exhibition period by 2 weeks	22 Sept. 2009	Cooma Monaro Express		
Media article - Impact of pipeline on residents	23 Sept. 2009		666ABC	
Media article - Impact of pipeline on residents	24 Sept. 2009		666ABC	
Media article - Deadline for submissions closing	3 October 2009		2CC	

Direct mail

In addition to the above media promotion of the public exhibition period, ACTEW undertook an extensive direct mail campaign to ensure that community stakeholders were aware of the opportunity to comment and had the appropriate information to prepare a submission.

Just over 100 personal letters were sent to landholders and community organisations advising of the key dates in relation to public exhibition and enclosing a detailed information kit which included an electronic copy of the draft EIS/EA and associated community fact sheets.

Internet

The ACTEW Corporation website, www.actew.com.au/watersecurity, was used to promote the consultation program, featuring a copy of the draft EIS/EA, various fact sheets available as pdf documents for download including: *How to have your say*; *Maintaining flows in the Murrumbidgee*; *Protecting our environment and What to expect during construction*. Detailed information on the community information sessions and details on how the community could comment on the draft EIS/EA were presented in a clear and consistent manner.

The draft EIS/EA was also available for download from the NSW Department of Planning and ACTPLA websites.

5 Consultation outcomes

The draft EIS/EA consultation program attracted active participation from representatives of the community, government agencies and stakeholder organisations. Feedback was obtained from those who participated in a presentation on the draft EIS, visited a drop-in session, called the information line or provided a written submission.

5.1 Consultation activities

The consultation activities were delivered between 1 August and 2 October 2009. The formal consultation period was extended by the ACT and NSW Governments agreeing to receive submissions for an extra two weeks following requests from the community. Details on the delivery of each aspect of the consultation program are provided below.

Draft EIS/EA publications

To increase access opportunities for the community the draft EIS/EA was published as both a three volume printed version and on CD. The CD version featured an HTML interface that used chapter menus to allow the user to easily move through the document, whilst still maintaining the search function to enable readers to electronically search for areas or matters of key interest.

To complement the draft EIS/EA a 10 page summary document was produced that provided a summary of the EIS process, discussed the key issues identified in the EIS including a complete table of the commitments contained in the draft EIS/EA and invited the community to obtain further information as required and to make a comment during the consultation period.

Direct mail campaign

Once the draft EIS/EA was released it was important to distribute the documents in a timely fashion to a wide range of stakeholders. In addition to documents being made available on request, information packs including the summary document, fact sheet and an electronic copy of the Draft EIS/EA were distributed to the following groups:

- 40 landholders along the pipeline route.
- All ACT Community Councils.
- 12 local community and environmental organisations.
- indigenous representative groups.
- 21 government agencies and elected representatives

A list of agencies and organisations contacted can be found at Appendix A.

Stakeholder meetings and presentations

Organisations receiving packages of information on the draft EIS were invited to contact ACTEW to arrange a presentation to their government agency, community, recreational or environmental group.

In addition to other briefings, meetings and presentations provided to community groups and stakeholders outside the formal exhibition period, briefings were provided to the following stakeholder groups and government agencies during the formal consultation period:

- Queanbeyan Emergency Services;
- Burra and Urila Residents and Ratepayers Association (B.U.R.R.A);
- National Capital Authority;
- Smiths Road Community Group;

- Upper Murrumbidgee Catchment Coordinating Committee – including separate briefings on both Fluvial Geomorphology and Aquatic Ecology specialists reports;
- NSW Department of Environment and Climate Change;
- Ongoing discussions with Palerang Shire Council; and
- A range of landholders directly impacted on by the project.

Information sessions

Five information sessions were held to provide the members of the public with the opportunity to learn more about the project, the draft EIS/EA and to provide comments or feedback on what was proposed in the document. Information sessions were held at various locations across Canberra, Queanbeyan and the Burra region at differing times of the day to allow a variety of opportunities to participate.

Information sessions were held on:

- Tuesday 25 August 11 – 2pm, Canberra City
- Thursday 27 August, 4.30 – 7.30pm, Burra
- Saturday 29 August, 10am – 12 noon, Burra
- Tuesday 1 September, 10am – 1pm, Tuggeranong
- Thursday 3 September, 10am – 1pm., Queanbeyan

ACTEW email address and hotline

To allow members of the public to provide feedback easily the Water Security - Major Projects email address watersecurity@actew.com.au and the information hotline were promoted throughout the consultation period.

Internet

During the consultation period the Draft EIS/EA was available on the ACTEW, the ACT Planning and Land and the NSW Department of Planning websites.

Consultation on alternate (upstream) outlet location

One of the key issues raised by the community during the consultation period and in the formal written submissions was that ACTEW adopt an alternative upstream discharge option. The EIS adopts this upstream outlet as the preferred project. As part of reaching the decision to adopt this upstream outlet location, ACTEW undertook additional community consultation with those local community groups and those landholders located closest to the new discharge location to assess the views of these residents.

This consultation program included meetings with eight representative community organisations and 11 landowners directly affected by the proposed upstream outlet location. Detail on this consultation program is included at section 6.3 of this report and the detailed consultation is included at Appendix D.

Directly impacted landholder consultation

Throughout the public exhibition period for the draft EIS/EA, ACTEW continued to liaise with landholders directly impacted by the project, who received written notice of the consultation activities and were invited to participate in all activities.

5.2 Participation

Despite extensive media and marketing activities and direct mail to over 100 local resident and community groups, undertaken to promote interest in the draft EIS/EA for the Murrumbidgee to Googong Water Transfer, participation in the consultation program for the draft EIS/EA was not high. An estimated total of 162 organisations or individuals chose to participate in the consultation program either by attendance at one

of the drop-in sessions, participation in a presentation or meeting, or by providing a comment in response to the draft EIS/EA.

The breakdown of where these people participated is detailed in Table 1.

Table 3 Participation rates in consultation activities

Activity	Total	Government	Community organisation	Member of the public
Drop in sessions Canberra City – 0 Burra – 22 Tuggeranong – 3 Queanbeyan - 8	33	0	0	33
Presentations Based on an average of - 5 people at each community presentation - 2 people at each government presentation	41	6	20	15
Submissions to ACTPLA*	44	7	9	28
Submissions to NSW DoP*	39	4	6	29
Calls to the community information line	5			5
Total estimated participants	162			

* 25 submissions, counted individually in these numbers, were the same submission lodged with both ACT and NSW.

Throughout the consultation period, feedback received from consultation activities was recorded in the consultation database and has been used in the preparation of this report.

5.3 Submissions received

A total of 83 submissions were received by the NSW Department of Planning and the ACT Planning and Land Authority. Of these 25 submissions were duplicates that were submitted in both jurisdictions.

More than half of the submissions received were from individuals, with 10 submissions from government agencies and 12 from community organisations. The graph below shows a breakdown of these submissions in terms of government, community organisation or individual.

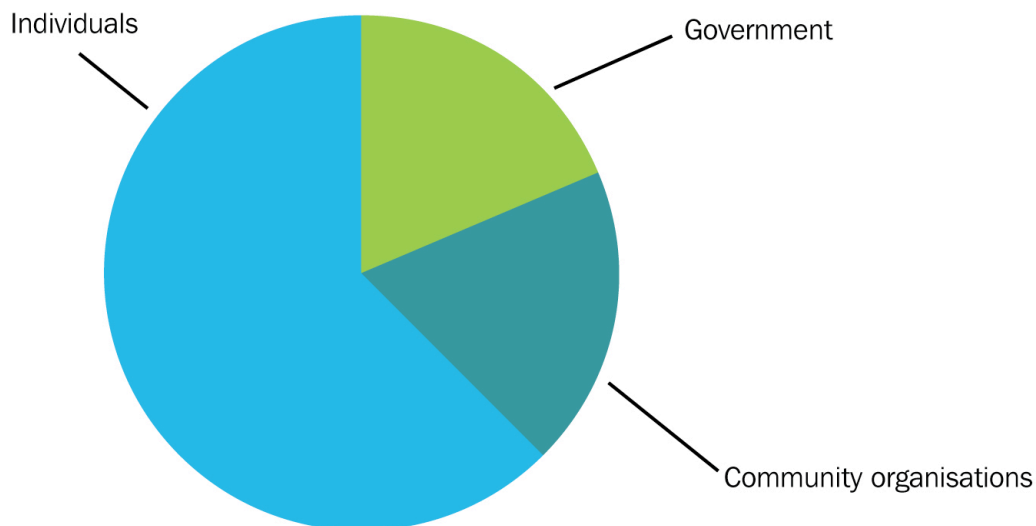


Figure 2 Total submissions received by organisation.

The following government agencies made submissions in response to the draft EIS/EA:

- ACT Environment Protection Authority;
- ACT National Trust;
- Murray Darling Basin Authority;
- National Capital Authority;
- NSW Department of Environment Climate Change and Water (2 submissions);
- NSW Industry and Investment, Division of Primary Industries, Fisheries Conservation and Aquaculture;
- NSW Heritage Council;
- NSW Office of Water;
- Palerang Shire Council; and
- Territory and Municipal Services ACT.

The following community and environmental organisations lodged submissions in response to the draft EIS/EA:

- Burra District Pony Club;
- Burra Landcare Group Inc;
- Burra Landcare Group Inc Minority Response;
- B.U.R.R.A Pipeline Subcommittee;
- Burra Urila Residents and Ratepayers Association Inc (B.U.R.R.A);
- Conservation Council ACT Region;
- Environment Institute of Australia and New Zealand;
- Friends of the Grasslands;
- Molonglo Catchment Group Inc;
- Queanbeyan Landcare Inc; and
- Upper Murrumbidgee Catchment Coordinating Committee

5.4 Data capture

Community and stakeholder feedback was recorded by ACTEW in a consultation database that allows comments to be accurately recorded and key issues to be monitored and reported upon. For meetings and presentations, detailed minutes of the meetings were taken to capture the comments and opinions of those involved.

At the community drop-in sessions community feedback forms were used to encourage the public to officially record their comments or queries. Not everyone who visited a drop-in session took the opportunity to complete a community feedback form.

Details of the written submissions were recorded in a detailed spreadsheet that allowed the project team to prepare an individual response to each. This spreadsheet is included at Appendix E.

6 Issues raised

6.1 Issues raised during consultation

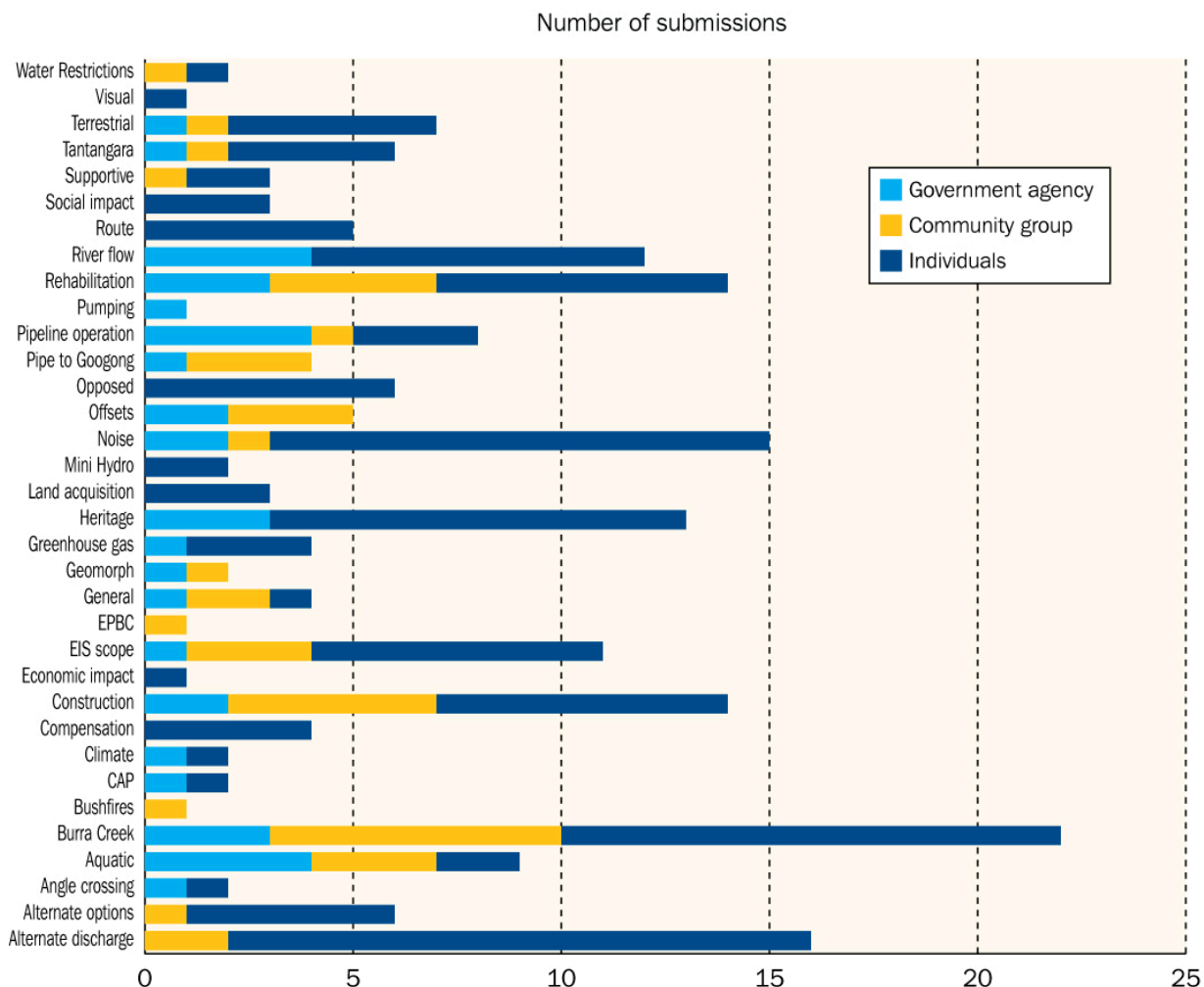
Throughout the consultation period some very clear trends emerged as to the key areas of interest from across the community and government sector. These issues were consistent across all consultation activities. A summary of the key issues raised during the consultation period in order of frequency were:

- **Impact on Burra Creek;** a wide variety of issues were raised with respect to Burra Creek including questions around the proposed flow regime and the associated modeling and concerns about impacts such as erosion, reduced water quality and loss of existing creek habitat. The community expressed interest in understanding the proposed monitoring regime better. There was a minority view that discharging into Burra Creek earlier will have positive impacts on that section of the Creek.
- **Alternative (upstream) outlet option;** members of the community expressed support for an alternate discharge location about 2km further upstream in Burra Creek as it would mean less impact on landholders and it was believed would have a positive benefit on the ecosystems of the creek. Some indicated they would like to see construction savings to ACTEW, as a result of the shorter pipeline, reinvested into community projects.
- **Construction issues;** matters raised include suggestions relating to management plans that ACTEW will put into place during construction, direct impacts of construction such as traffic, spoil;
- **Noise;** comments seek commitments with regard to construction noise and the associated blasting; more detail is sought in relation to the location and potential noise impacts of pipeline air-valves;
- **River flow;** submissions raise matters in relation to the level of Murrumbidgee River flows and the associated impacts at Angle Crossing, on downstream users. Several submissions suggest that there is insufficient water in the Murrumbidgee River to meet the requirements of this project.
- **Rehabilitation;** submissions raised specific rehabilitation comments in relation to areas such as crossing of watercourses, Burra Creek and along the roadside. More broadly queries were raised about ACTEWs commitment to rehabilitation and concerns about scarring along the pipeline route and the route becoming an informal dirt track.
- **Heritage;** matters raised include the process of managing heritage artifacts located during construction and the continued liaison with local indigenous groups. Heritage questions were also raised in relation to the World War II bomb shelter and school at Williamsdale, the poplar trees Williamsdale Road and impacts on London Bridge Arch.

In addition to the above issues, other comments related to the scope of the EIS/EA; operation of the pipeline, aquatic and terrestrial impacts and consideration of alternative options to secure the water for Canberra and the region.

There were 6 written submissions received that were directly opposed to the project.

The figure below shows the spread of topics that were raised through written submission to ACTPLA and NSW Department of Planning.



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Figure 3 Number of submissions related to issue raised

17 submissions were received from landholders who are directly affected by the project by the pipeline passing through their properties. The key issues raised by these landholders were:

- Support for the alternate outlet location
- Concerns associated with potential noise associated with air valves along the route.

Other issues raised by landholders reflected those raised generally across all the submissions including construction impacts, impacts on Burra Creek and comments about the broad route selection,

There were two directly impacted landholders who directly opposed the project.

6.2 Responses to key issues raised

A complete list of issues raised by submissions during the consultation process is included as Appendix E. This list of issues provides details on ACTEW's response to each specific issue and the relevant area of the EIS which discusses the matter in more detail.

Key issues raised and the associated summaries of responses are detailed below.

6.2.1 Impact on Burra Creek

There were a large number of issues raised about the potential negative impact of the project on Burra Creek, this included concerns about the validity of certain modelling undertaken in the draft EIS/EA. To address these issues ACTEW engaged an external river biologist to undertake a rigorous desktop study to

assess the findings of studies undertaken for the draft EIS/EA. Subsequent studies were also undertaken on the upstream outlet option and additional data was provided from spring water quality monitoring program conducted by Ecowise.

Further assessment has provided a more holistic understanding of the Burra Creek system, notably a more robust basis for comparison of the characteristics of Burra Creek and the Murrumbidgee River, including water quality (refer to section 11.4). The study also investigated the potential impacts on geomorphology and aquatic flora and fauna to give a more holistic understanding of baseline characteristics of Burra Creek. The study recommends operational procedures to protect aquatic ecosystems (refer to section 12.5.3).

Based on the outcomes of the desktop study ACTEW has refined the adaptive management framework to direct the future operation of the project and minimise the risk to the ecology of Burra Creek. This approach is in line with industry best practice and has been adopted successfully in a broad range of infrastructure projects. The framework includes a detailed monitoring program using key environmental indicators (stream geomorphology at vulnerable sites and physiological condition of aquatic plants) to assess the health of the Burra Creek. Results of sampling will be available for critical review by key stakeholders including relevant government agencies and the local community. Further details of the monitoring program and adaptive management framework are available in 12.5.3.

6.2.2 Alternative (upstream) outlet option

In response to the large number of submissions in favour of the alternative outlet option (upstream outlet) located further upstream in Burra Creek, ACTEW has adopted this option into the final project specifications. ACTEW commissioned extra environmental investigations associated with the option and undertook a specific community consultation with local community organisations and potentially affected landholders.

The EIS adopts the upstream outlet which is outlined in detail in the Project Description in Chapter 6. Environmental assessments associated with the route have been revisited and updated to reflect the upstream outlet location throughout the document.

6.2.3 Construction issues

ACTEW is committed to the development of management plans as an important early step in ensuring impact during the 18 month construction period is minimised. These management plans are outlined in detail in Section 27.3.2 of the EIS/EA and include the following sub-plans:

- Soils and water management;
- Flood contingency;
- Flora and fauna management;
- Indigenous and non-indigenous heritage management;
- Waste management;
- Noise and vibration management;
- Air and dust management;
- Traffic management; and
- Integrated risk.

Several submissions raised matters that will be dealt with in one of the plans detailed above. Specific reference to how these have been taken into consideration by ACTEW can be found in Appendix E to this Report.

6.2.4 Noise

Chapter 20 of the EIS provides detail on the noise management plan for the project. In relation to construction noise, ACTEW will apply pro-active construction noise and vibration management sub-plan for

potential sources of noise and vibration in order to minimise impacts. This sub-plan will require endorsement by the relevant NSW and ACT agencies and feature auditing and monitoring of the construction noise and vibration. The plan will be coupled with community consultation and information and a noise complaint handling procedure which will feature a course of action to manage and address complainants concerns in a timely manner. The construction noise and vibration mitigation measure are provided in Section 6 of the Noise and Vibration Impact Assessment Report (Appendix L of the EIS). Section 5.5 discusses the potential blasting impacts associated with the project and identifies that airblast overpressure is the most likely impact of blasting noise. Methods to reduce the impact of airblast overpressure are detailed in Section 6.3 of the Noise and Vibration Assessment report, which includes optimising blast design, making efforts to reduce the number of shots and allowing for the effects of temperature inversion and wind speed and the direction of the propagation of airblast to surrounding areas.

6.2.5 River flow

Issues associated with the impact of the project on the Murrumbidgee River, Angle Crossing and downstream users are discussed in Chapter 9 of the EIS/PPR.

All modeling has taken into account historical flows in the river, including recent low flows. Projected pipeline extractions allow for the impact of climate change and the projection of river environmental flows in the Murrumbidgee. This acknowledges that there will be periods when there is not enough water flowing in the river to allow pumping to occur. Despite these expected limitations, the amount of water available to be pumped is projected to be sufficient to make the pipeline project viable.

The impact of pumping water on water flow parameters such as depth, velocity and volume at Angle Crossing is presented in Section 9.4 of the Draft EIS/EA and is assessed as being low.

Chapter 9 also addresses the question of impact on flows leaving ACT and entering NSW, noting that all existing Canberra and Queanbeyan demand is met through abstractions from the Murrumbidgee, either by interception before the flows arrive there or directly from the River. This fact also applies to effluent reuse and stormwater harvesting, as these flows would have otherwise also entered the Murrumbidgee River. Overall, the Murrumbidgee to Googong Water Transfer would result in a 1 % change in average flows leaving the ACT (with the average flow leaving ACT being 509 GL/annum). This change will not impact on environmental flow requirements as transfers to Googong will only occur once there are sufficient environmental flows in the Murrumbidgee River.

The relatively small impact on nett water volume outflows suggests that the impact on downstream users will be minimal. The mitigation measures described under Section 9.6 'Proposed abstraction Regime', which cover preservation of downstream environmental flows and monitoring to revise environmental flow rules if necessary, are aimed at protecting the interests of downstream users.

6.2.6 Rehabilitation

ACTEW is committed to successful rehabilitation of the construction easement and an appropriate Landscape Rehabilitation Management Plan will be put into place to ensure this. This will include using the latest technology and experts in the field of native grass revegetation to improve native grass revegetation and eliminate noxious weeds. Where appropriate or required by property holders, rehabilitation may include the reestablishment of improved pastures. The pipeline route has been designed to avoid areas of high conservation value. There will be a 15m easement in areas of EEC.

Top soil will be stockpiled on stripped ground and after the pipe is laid and buried the rehabilitation plan will be followed. The strip topsoil to rehabilitation timeline should be no more than three months.

To avoid potential for the route to become an informal 'dirt-track' the construction area will remain fenced during the rehabilitation period following construction the area will remain fenced and police will be informed of any illegal activity. No permanent access is to be constructed after rehabilitation is complete. All erosion control procedures will be followed.

The pipeline is through private landholdings so the risk of people coming onto properties will be minimal without the land owner being aware. During construction the area will be under security guard.

6.2.7 Heritage

Further Aboriginal cultural heritage assessment is to be conducted as part of the required actions in the Indigenous Heritage Management Sub Plan of the Construction Environmental Management Plan. These actions involve the testing of known and potential archaeological deposits to determine the most appropriate strategy for impact mitigation, such as surface artefact collection and/or salvage excavation. ACTEW has engaged consultants to conduct the program of archaeological subsurface testing across the project area. The assessment area will also include the upstream pipeline outlet location and associated potential downstream impacts, west of Burra Road.

In response to a number of submissions on the draft EIS, an unanticipated discovery protocol will be drafted and included within the Indigenous Heritage Management Sub Plan of the Construction Environmental Management Plan. The protocol will address both Indigenous and non-Indigenous finds and comply with the requirements of the ACT and NSW statutory authorities.

6.3 Refinements and changes to the project since public exhibition

6.3.1 Upstream outlet location

In response to community feedback during 2009 and as specifically outlined in submissions during the public exhibition of the draft EIS/EA, ACTEW undertook a specific consultation on a proposed alternate discharge point in Burra Creek – known by the community as the ‘upstream’ discharge.

This proposed ‘upstream’ discharge, or upstream outlet, is located in the vicinity of the low level crossing on Williamsdale Road near the junction of Burra and Williamsdale Roads. ACTEW proposes that subject to this further consultation and environmental assessment, that the upstream outlet replace the previously assessed outlet location, further downstream in Burra Creek, East of Burra Road, located just within the Googong Foreshores.

In relation to the consultation with the landowners and community organisations on the upstream outlet and mini-hydro power facility the objectives were to:

- ensure all affected stakeholders have an opportunity to provide comment on the proposed location, design and impact;
- Provide stakeholder feedback to the project team to refine location and design, and to minimise impacts;
- To document the consultation process and key outcomes for the final Environmental Impact Statement (EIS); and
- Include the upstream outlet consultation report in the final EIS

The upstream outlet consultation report is included at Appendix D of this Report. This Report includes detailed description of community views on the alternate outlet and concludes that more respondents were in favour of the outlet location being in the vicinity of the low level crossing on Williamsdale Road near the junction of Burra and Williamsdale Roads over the previous pipeline route and discharge location.

The consultation targeted 11 landowners directly affected by the proposed upstream outlet and 8 representative community organisations and resulted in comment by seven landowners and five community organisations. These comments were in addition to the 16 submissions supporting the alternate outlet location received during the public exhibition of the draft EIS/EA.

It is noted that some community organisations, namely Burra Landcare, UMCCC and Molonglo Catchment group remain opposed to discharge of water into Burra Creek, and would prefer to see the pipeline route be altered in favour of a direct discharge of water directly into Googong Reservoir. It should be noted that some of the members of these community organisations are local residents and are either directly or non directly affected by the alignment, and some individuals belong to all two to three of the aforementioned representative groups.

There has been no direct preference provided by the community in relation to the location of the mini-hydro power facility at the same location, there was support for the current design which would see the mini-hydro power facility constructed mainly underground, and that screening be put in place (this includes retention of existing poplars near the site).

A summary of key issues in relation to the upstream outlet which the community raised during this consultation and which have been addressed in the EIS include:

- Retention of existing riparian rights for domestic use;
- Creek erosion control;
- Maintenance of flood gates located in Burra Creek to prevent straying of stock;
- Protection of existing flora and fauna and aquatic ecology, and that wildlife that may return to the creek as a result of increased flows are monitored and are protected from increasing or decreasing flow levels in the creek;
- Development of a comprehensive monitoring program and adaptive management plan in partnership with affected landowners and representative community organisations;
- Possible use of cost savings by reduced pipeline length and impact to landowners be directed to the community in the form of road improvements and environmental projects in the local community; and
- Opposition to the Murrumbidgee to Googong Water Transfer discharging water into Burra Creek, and preference for pipeline to directly discharge into Googong Reservoir.

Taking into consideration both the outcomes of the target consultation activity described above and the continued feedback from the community both prior to and during the public exhibition period on the draft EIS/EA, ACTEW has opted to adopt the alternate upstream outlet location as the preferred project described in the EIS.

6.3.2 Recreational use of Angle Crossing

ACTEW has been in close discussions with ACT Parks Conservation and Lands (PCL) regarding temporary impacts of construction at Angle crossing on recreational users of the area. As a result of concerns about public safety, it is has been agreed that Angle Crossing beach and parking area be temporarily closed for the duration of construction – a period of approximately 16 months.

It has also been agreed that an alternate recreational area be utilised during construction, and that the site of Tharwa Sandwash, located downstream, and approximately 9km by road would be a suitable site for recreational users during construction of the project. This proposal is addressed in detail in chapters 4, 6, 17, 23, 27 and 28 of the EIS.

7 Conclusion

It is requirement of the *ACT Planning and Development Act 2007* and the *NSW Environment Planning and Assessment Act 1979* that ACTEW respond to all representations made to ACTPLA and the NSW Department of Planning during the public consultation (notification) period. ACTEW has responded to all representations as detailed in Appendix E.

Where appropriate these responses detailed in Appendix E have then been translated into amendments and/or clarifications in the EIS. Where possible, references to the relevant sections of the EIS are also detailed against the particular representation.

The final EIS, including details of the comments received and the associated responses will be lodged with ACTPLA and NSW Department of Planning for consideration.

ACTEW is committed to maintaining regular communications with government and non-government stakeholders, directly affected land owners and the broader community. The information hotline and email address remain open and the website continues to be kept up to date with project developments. As detailed earlier in this document, a comprehensive community engagement and stakeholder management program will continue throughout the delivery of the Murrumbidgee to Googong Water Transfer Project including during post-construction rehabilitation. This commitment is supported by a dedicated CESH resource for the duration of the project.

Further statutory consultation will also occur as the ACT Development Application and Commonwealth Public Environment Report processes continue during 2010.

Appendix A Government agencies and community groups contacted

Stakeholders
ACT Department of Territory and Municipal Services
ACT Health
ACT Parks, Conservation and Lands; Territory and Municipal Services
ACT Planning and Land Authority
ACT Rural Landholders' Association
Australian Capital Tourism
Australian Rail Track Corporation
Australian Railway Historical Society
Bidgee Blue
Braidwood Rural Lands Protection Board
Burra Community Association
Burra Garden Club
Burra Landcare Group
Burra Rural Fire Brigade
Burra Urilla Residents Ratepayers Association
Canberra Business Council
Canberra Investment Corporation
Community Alliance Party
Conservation Council of the South East Region Canberra
Cooma-Monaro Shire Council
Department of Education and Training
Department of Environment, Water, Heritage and the Arts
Engineers Australia
Environment Protection, TAMS - Territory and Municipal Services
Fisheries Conservation Manager (South Coast), NSW Department of Primary Industries
Friends of Googong
Molonglo Catchment Group
Molonglo Waterwatch
Murray Darling Basin Authority
National Capital Authority
NSW Catchment Management Authority
NSW Department of Environment, Climate Change and Water
NSW Department of Lands
NSW Department of Planning
NSW Department of Primary Industry
Palerang Council

Stakeholders
Queanbeyan Business Council
Queanbeyan City Council
Queanbeyan Council
Queanbeyan Landcare
Queanbeyan Police
Rotary Club Canberra Fyshwick
Rotary Club of Canberra East
Rotary Club of Tuggeranong
Rotary Club of Woden
Smiths Roads Community Group
Southern Rivers Catchment Management Authority
Tinderry Trail Horse Riders
Tuggeranong Community Council
University of Canberra
Weston Creek Community Council
Woden Valley Community Council

Appendix B Promotional examples



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MAJOR PROJECTS

Murrumbidgee to Googong Water Transfer – Draft Environmental Impact Statement and Environmental Assessment

ACTEW Corporation has submitted a draft Environmental Impact Statement (EIS) and Environmental Assessment (EA) to the ACT Planning and Land Authority (ACTPLA) and the NSW Department of Planning, in relation to the Murrumbidgee to Googong Water Transfer.

This document is available for public comment and will be on display until 18 September 2009. It assesses the overall environmental impacts of the project and the proposed mitigation measures.

The draft EIS and EA document may be viewed on the ACTPLA website, www.actpla.act.gov.au, the NSW Department of Planning website, www.planning.nsw.gov.au or the project website, www.actew.com.au.

The Murrumbidgee to Googong Water Transfer involves transferring water from the Murrumbidgee River through an underground pipeline to Burra Creek in NSW, which flows into Googong Reservoir.

For further information on this or other projects being delivered by the ACTEW Water Security – Major Projects team contact:

Information line: 02 6248 3563

Email: watersecurity@actew.com.au

Web: www.actew.com.au



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MAJOR PROJECTS

Murrumbidgee to Googong Water Transfer community drop-in sessions

ACTEW Corporation invites the community to attend drop-in sessions to view and ask questions relating to the draft Environmental Impact Statement (EIS) and Environmental Assessment (EA) for the Murrumbidgee to Googong Water Transfer.

The draft EIS and EA document has been submitted to the ACT Planning and Land Authority (ACTPLA) and the NSW Department of Planning and is now available for public comment. It assesses the overall environmental impacts of the project and the proposed mitigation measures.

Community drop-in sessions will be held at:

Olims Hotel Canberra, Corner of Ainslie & Limestone Ave, Braddon ACT
Tuesday 25 August, 11am-2pm

Burra Community Hall, Burra Road, Burra NSW
Thursday 27 August, 4.30pm-7.30pm and Saturday 29 August, 10am-12pm

Tuggeranong Community Centre, 245 Cowlshaw Street, Greenway ACT
Tuesday 1 September, 10am-1pm

R.B Smith Community Centre, 262 Crawford Street, Queanbeyan NSW
Thursday 3 September, 10am-1pm

The draft EIS and EA document may also be viewed on the ACTPLA website, www.actpla.act.gov.au, the NSW Department of Planning website, www.planning.nsw.gov.au or the project website, www.actew.com.au.

The document is on public display from 17 August until 18 September 2009.

The Murrumbidgee to Googong Water Transfer involves transferring water from the Murrumbidgee River through an underground pipeline to Burra Creek in NSW, which flows into Googong Reservoir.

For further information on this or other projects being delivered by the ACTEW Water Security – Major Projects team contact:

Information line 02 6248 3563
Email: watersecurity@actew.com.au
Internet: www.actew.com.au



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water matters

Progress of the Murrumbidgee to Googong Water Transfer

ACTEW Corporation has prepared a draft Environmental Impact Statement (EIS) and Environmental Assessment (EA) for the Murrumbidgee to Googong Water Transfer. The EIS/EA was lodged with the ACT Planning and Land Authority and the NSW Department of Planning on Monday 10 August 2009.

The project involves transferring water from the Murrumbidgee River through an underground pipeline to Burra Creek in NSW, which flows into Googong Reservoir.

The EIS/EA assesses the overall environmental impacts of the project and proposed mitigation measures.

The community is able to view and comment on the EIS/EA, which will be on public display from 17 August to 14 September 2009. To view these documents visit www.actpla.act.gov.au

ACTEW will host community drop-in sessions where people can read the documentation and ask questions of the project team.

COMMUNITY DROP-IN SESSIONS

Burra Community Hall, Burra Road, Burra NSW

Thursday 27 August, 4.30pm-7.30pm
and Saturday 29 August, 10am-12pm

Olims Hotel Canberra, Corner of Ainslie & Limestone Ave, Braddon ACT

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Thursday 3 September, 10am-1pm

For further information on this or other projects being delivered by the ACTEW Water Security Major Projects team contact:

Information line (02) 6248 3563

Email watersecurity@actew.com.au

Internet www.actew.com.au

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MAJOR PROJECTS

Casuarina Sands Development Application

ACTEW Corporation's Development Application (DA) to undertake upgrades to the Casuarina Sands Recreational Area is on public exhibition until 18 August 2009.

These upgrades include improvements to parking, upgraded facilities and additional shade, BBQs and picnic tables. To view the DA documents visit www.actpla.act.gov.au



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Appendix C Stakeholders and influencing levels in the Project

Table 4 Stakeholders and influencing level				
Level 1 – Approval	Level 2 – Influencing		Level 3 – Interested	
<p>NSW Department of Planning</p> <p>NSW DECCW (incl. Office of Water)</p> <p>Comm DEWHA (Department of Environment, Water, Heritage and the Arts)</p> <p>ACT Planning and Land Authority (ACTPLA)</p> <p>ACT Environmental Protection Authority (EPA)</p>	<p>Palerang Council</p> <p>ACT Health</p> <p>NSW Indigenous Land Councils</p> <p>Eden Monaro Federal Member- Mike Kelly</p> <p>Burra Landcare</p> <p>Waterwatch</p> <p>Burra Rural Fire Brigade</p> <p>B.U.R.R.A (Burra Urila Residents and Ratepayers Association)</p> <p>Upper Murrumbidgee Catchment Coordinating Committee (UMCCC)</p> <p>Conservation Council</p>	<p>NSW State member for Monaro- Steve Whan</p> <p>NSW Minister for Energy, Water and Resources-</p> <p>NSW Department of Primary Industries</p> <p>NSW Department of Fisheries</p> <p>Department of Territory and Municipal Services (TAMS) – PCL Division</p> <p>Murrumbidgee Catchment Management Authority</p> <p>NSW Landholders</p> <p>Burra Community Association</p> <p>Molonglo Catchment Group</p>	<p>Media (Print, TV and radio)</p> <p>Environment Groups</p>	<p>Queanbeyan Landcare Inc.</p> <p>Friends of Googong</p> <p>Greening Australia</p>

Appendix D Community Consultation – Upstream Outlet (Burra Creek, NSW)

Community Consultation – Upstream Outlet (Burra Creek, NSW) Murrumbidgee to Googong Water Transfer

14 December 2009

1 Community Consultation – Upstream Outlet

1.1 Background

The Murrumbidgee to Googong Water Transfer involves transferring water from the Murrumbidgee River through an underground pipeline to Burra Creek in NSW, which flows into Googong Reservoir. It is one component of Water Security – Major Projects, a suite of water security infrastructure initiatives now being implemented by ACTEW Corporation to secure the region's water supply.

Public Exhibition of the projects draft Environmental Impact Statement (ACT) and Environmental Assessment (NSW) (EIS/EA) closed on 18 September 2009 in both the ACT and NSW. In addition, the NSW Department of Planning announced that it would accept late submissions on the Murrumbidgee to Googong Water Transfer Environmental Assessment until close of business on Friday 2 October 2009. It is anticipated that a final EIS will be lodged with relevant planning authorities by the end of 2009.

In response to community feedback during 2009 and as specifically outlined in submissions during the public Exhibition of the draft EIS/EA ACTEW undertook a specific consultation on a proposed alternate discharge point in Burra Creek – known by the community as the 'upstream' discharge.

This proposed 'upstream' discharge, or upstream outlet is located in the vicinity of the low level crossing on Williamsdale Road near the junction of Burra and Williamsdale Roads. ACTEW proposes that subject to this further consultation and environmental assessment, that the upstream outlet replace the previously assessed outlet location, further downstream in Burra Creek, East of Burra Road, located just within the Googong Foreshores.

ACTEW commissioned fluvial geomorphology and aquatic ecology specialists to assess the impact of the proposed 'upstream' discharge and this plan aims to provide a framework for engagement of affected landowners and interested community organisations in relation to this alternative.

ACTEW has also proposed to reduce green house gas emissions where practical and offset all remaining greenhouse gas emissions. As part of this commitment a mini-hydro power facility will be incorporated into the project. The mini-hydro power facility will housed largely underground, located close to Burra Creek at the discharge point, and will recover about 20 per cent of the total electricity used for pumping of the water.

1.2 Objectives

- In relation to the consultation with the landowners and community organisations on the upstream outlet and mini-hydro power facility the objectives were to:
 - ensure all affected stakeholders have an opportunity to provide comment on the proposed location, design and impact;
 - Provide stakeholder feedback to the project team to refine location and design, and to minimise impacts;
 - To document the consultation process and key outcomes for the NSW submissions report and Final Environmental Impact Statement (EIS); and
 - Include the upstream outlet consultation report in the Final EIS

1.3 Outline of consultation process and timeline

A number of detailed submissions were received as part of the formal public exhibition of the draft EIS/EA, prompting a focused consultation with those landowners who are directly affected by both the original downstream discharge and the proposed alternate upstream outlet. This consultation extended to those community groups who have previously expressed an interest in the discharge of water into Burra Creek and the mini-hydro power facility.

To facilitate this targeted consultation, a detailed letter outlining the proposal and copy of schematic plans of proposed location of the discharge structure and mini-hydro facility was sent to affected landowners and interested community organisations on Wednesday 4 November 2009.

This letter outlined the proposal and sought views of landowners and community organisations in writing by Friday 20 November 2009. Copies of these letters are provided at Attachment A and Attachment B.

Following a written request for additional time to respond and request for copies of draft Fluvial Geomorphology and Aquatic Ecology specialist reports which were provided by ACTEW, the Upper Murrumbidgee Catchment Coordinating Committee (UMCCC) were given until Wednesday 9 December to provide comment. At the time of writing no additional comments from the UMCCC following the request for an extension have been received.

ACTEW also offered briefings, site visits and meetings regarding the proposal and included follow up phone calls to all affected landowners. Comments were recorded at meetings and during phone calls and entered into Consultation Manager Database. These comments are summarised below.

A community update containing information relating to the upstream outlet and mini-hydro power facility was sent out in early December via email and mail to the broader community, utilising the comprehensive community database for the Murrumbidgee to Googong Water Transfer and update loaded to the ACTEW Water Security - Major Projects website.

Other stakeholders including ACT and NSW government agencies were informed of the intention to include an the upstream outlet in the EIS, during meetings held within in the consultation timeframe.

A total of 11 affected landowners have been consulted as part of this process, and eight representative community organisations, with most providing some comment, or have referred ACTEW to their original submission provided as part of the formal consultation during public exhibition of the draft EIS/EA.

All comments regarding the upstream outlet/mini-hydro power facility location have been reviewed and incorporated in this report. This report also provides a summary of issues raised regarding the alternate (upstream) discharge during the formal consultation conducted during public exhibition of the draft EIS/EA which occurred from 14 August – 18 September.¹

Table 1 - Timeline of Consultation on Upstream outlet

Date	Action	Completed
Friday 30 October – 4 November 2009	<ul style="list-style-type: none"> Prepared and sent letters to affected landowners and community organisations seeking feedback in writing and offer of briefings / meetings 	4 November 2009
Week beginning 2 – 13 November	<ul style="list-style-type: none"> Commenced briefings and 	18 November 2009

¹ NSW Department of Planning accepted late submissions up to 2 October 2009.

Date	Action	Completed
2009	meetings with affected landowners and community organisations	
Friday 20 November	<ul style="list-style-type: none"> • Deadline for written comments 	Extended (see below)
Wednesday 9 December	<ul style="list-style-type: none"> • Extended deadline for written comments 	9 December 2009
Monday 14 November	<ul style="list-style-type: none"> • Final Consultation report complete and included in Final EIS 	14 December 2009

Stakeholders

Stakeholders in the project were identified as part of the broader Community Engagement and Stakeholder Management (CESM) Plan 2008 and form part of the current CESM Plan 2009-2010.

Table 5 Stakeholders and influencing level			
Level 1 – Approval	Level 2 – Influencing	Level 3 – Interested	
<p>NSW Department of Planning</p> <p>NSW DECCW (incl. Office of Water)</p> <p>Commonwealth DEWHA (Department of Environment, Water, Heritage and the Arts)</p> <p>ACT Planning and Land Authority (ACTPLA)</p> <p>ACT Environmental Protection Authority (EPA)</p>	<p>Palerang Council</p> <p>ACT Health</p> <p>NSW Indigenous Land Councils</p> <p>Eden Monaro Federal Member- Mike Kelly</p> <p>Burra Landcare</p> <p>Waterwatch</p> <p>Burra Rural Fire Brigade</p> <p>B.U.R.R.A (Burra Urila Residents and Ratepayers Association)</p> <p>Upper Murrumbidgee Catchment Coordinating Committee (UMCCC)</p> <p>Conservation Council</p>	<p>NSW State member for Monaro- Steve Whan</p> <p>NSW Minister for Energy, Water and Resources-</p> <p>NSW Department of Primary Industries</p> <p>NSW Department of Fisheries</p> <p>Department of Territory and Municipal Services (TAMS) – PCL Division</p> <p>Murrumbidgee Catchment Management Authority</p> <p>NSW Landholders</p> <p>Burra Community Association</p> <p>Molonglo Catchment Group</p>	<p>Queanbeyan Landcare Inc.</p> <p>Friends of Googong</p> <p>Greening Australia</p>

1.3.2 Affected landowners

In addition to the broader stakeholders a number of landowners will be affected by the proposal to discharge water from the Murrumbidgee to Googong Water Transfer into Burra Creek at the upstream outlet location.

Table 2 - Affected landowners

Table 6 Affected landowners			
Affected landowner	Affect of proposal	Details of consultation	Issues raised
Landholder A	Potentially impacted by infrastructure Potentially impacted by flows / noise	Sent letter inviting comment and schematic plans via email and mail Wednesday 4 November 2009. Phonecall to confirm receipt of letter via email. Map delivered to home on 12/11/09. Visit to home for meeting regarding proposal made 7pm 19/11/09. Follow up of several issues raised – including additional land acquisition needed by upstream outlet and changed pipeline alignment (easement).	<ul style="list-style-type: none"> Upstream discharge affecting easement and impact on property greater than previously thought. Needs to undergo further discussion on land acquisition for the upstream output and change in pipeline alignment. Location of air/scour valves – questions relating to noise and operation. Visual of mini-hydro power facility a concern, but happy if trees screening it are retained (Poplars). Interested in the health of the creek, and that monitoring important. Would like to see return of platypus to the creek, noted presence of platypus previously but not for some time.
Landholder B	Home located near the discharge - affected by downstream option. Possible that the location of	Sent letter inviting comment and schematic plans via email to three email addresses Wednesday 4 November 2009 Phonecall made 12/11/09	No further comment required – asked that her submission regarding this option be considered as input to this consultation (see also comments by Individual 1 in 1.5

Table 6 Affected landowners

Affected landowner	Affect of proposal	Details of consultation	Issues raised
	<p>the mini-hydro likely to be visible from their home. Favours the upstream option and provided submission during public exhibition period.</p>		<p><i>Summary of submissions received).</i></p>
Landholder C	<p>Affected by the downstream option and favours upstream discharge as outlined in submission made during Public exhibition period Impacted by flows</p>	<p>Sent letter inviting comment and schematic plans via email via email Wednesday 4 November 2009 Phone call from Landholder C on 23/11/09. Email sent by ACTEW on 24/11/09 with visualisations of mini-hydro and alternate discharge on.</p>	<p>Had been on holidays so had not originally seen email. Asked that her submission made during public exhibition be included as her input to this consultation (see comments by Individual 14 in 1.5 <i>Summary of submissions received</i>).</p>
Landholder D	<p>No longer impacted by pipeline Impacted by flows</p>	<p>Sent letter inviting comment and schematic plans via email via email Wednesday 4 November 2009 Received email with comments requesting email copy of detailed design drawings 10/11/09. Phonecall made on 10 November to offer meeting and to invite comment. Offer declined 10/11/09 but referred to submission made on the upstream outlet during formal consultation during public exhibition of the draft EIS/EA.</p>	<p>No further comments received, but referred to earlier submission (see comments by company and Individual 15 & 16 in 1.5 <i>Summary of submissions received</i>).</p>
Landholder E	<p>No longer impacted by pipeline Impacted by flows</p>	<p>Letter sent inviting comment and schematic plans via mail Wednesday 4 November 2009 Email received 10/11/2009</p>	<p>Concern about proposal to discharge upstream of current location. Happy with previous proposal to discharge further downstream (thereby not increasing flows to</p>

Table 6 Affected landowners

Affected landowner	Affect of proposal	Details of consultation	Issues raised
		<p>Email sent 10/11/09 to organise site visit. Materials delivered to home 19/11/09 Visit to home by ACTEW for meeting 26/11/09. Copy of draft Aquatic Ecology Report & Fluvial Geomorphology sent via email 27/11/09. Commitment given to follow up on related issues required relating to riparian rights and floodgates / stock movements required prior to commencement of transfer.</p>	<p>creek on their property). Issues include:</p> <ul style="list-style-type: none"> • Impact on Burra Creek • Maintenance of flood gates, particularly of different flow levels • Need to have floodgates in place for both high and low flow levels of creek, concerned mainly about movement of stock. • Retention of riparian rights for domestic use. • Discussion about potential for Burra Creek to become a closed stream, for the purposes of protection of flora and fauna, aquatic ecology and in particular fish populations. This was raised as a solution to help prevent public access to the Creek via private property to access increased fish populations which may result from increased flows in the creek. <p>Meeting \ resolved some of the concerns about flow levels with other issues to be addressed in the EIS. It is proposed that ACTEW meet with relevant environmental agencies and community organisations regarding possibility of Burra Creek becoming a closed stream if the project is approved.</p>

Table 6 Affected landowners

Affected landowner	Affect of proposal	Details of consultation	Issues raised
<p>Landholder F</p>	<p>Impacted by flows</p>	<p>Letter inviting comment and schematic plans sent via mail Wednesday 4 November 2009 Unable to make meeting at Landholder F's home on 26/11/09 Email received 20 November 2009. Email sent thanking for comment on 20/11/09.</p>	<ul style="list-style-type: none"> • Lives on a small holding bordered by the Burra Creek and Williamsdale crossing. • In full agreement with ACTEW 'upstream' discharge proposal, it will help to rejuvenate the stream and no doubt save quite a bit of money. • Having seen some very large flows in times of flood, particularly in the 70's and 80's, the current state of the creek is despairing to say the least, and has never seen it so dry. • Reference to previous owner of property assuring the current owner that the creek had never run dry in his lifetime, he had been born there in the early 20's. • In the last five years, the flood stopped over the summer months, and doubts the creek had been a 'pool & flow' stream before this time, and that it has run permanently. • Would like reassurance about retention of riparian rights for domestic use. • Recent rain had seen return of one platypus, which had previously been a common sighting in the creek when it was flowing.
<p>Landholder H</p>	<p>No longer impacted by pipeline</p>	<p>Letter sent inviting comment and schematic plans via email Wednesday 4 November</p>	<p>No comments received.</p>

Table 6 Affected landowners

Affected landowner	Affect of proposal	Details of consultation	Issues raised
		<p>2009</p> <p>Phonecall made to offer meeting on 12/11/09 – could not recall email being sent. Resent email 12/11/09</p> <p>No further comments received.</p>	
Landholder I	Impacted by flows	<p>Letter sent inviting comment and schematic plans via email Wednesday 4 November 2009.</p> <p>Phone call made 12/11/09 to offer on site meeting/visit to home.</p> <p>Email recent of letter and maps 12/11/09.</p> <p>Met at home 19/11/09, walk along creek, shown photos of previous flow levels.</p> <p>Comments recorded.</p>	<ul style="list-style-type: none"> • Section of creek on property, with part of property adjoining crown lease; • Supportive of increased flows in Burra Creek; • When Burra Creek was flowing, platypus and frogs regularly seen, now hardly ever; • Pointed out flood levels in creek and floodgate used to limit stock movement; • Provided photos demonstrating previous flow levels in the creek; and • Would like assurance riparian water rights retained for domestic use.
Landholder J	Potentially impacted by infrastructure Potentially impacted by flows / noise	<p>Letter sent inviting comment and schematic plans via mail, Friday 30 October 2009</p> <p>Phonecall received on 12/11/2009 regarding proposal. Outline of proposal given, and answered a few questions on the phone about other aspects of the project.</p> <p>Offered meeting on site/home but offer was declined 12/11/09.</p>	<ul style="list-style-type: none"> • Doesn't have any issues in relation to location of the outlet structure or mini-hydro power facility, despite having visual impact from property. • In phone conversation, commented that it would be good to clean out the creek with increased water, and that he will enjoy fishing for trout in the future. • Asked about noise associated with

Table 6 Affected landowners			
Affected landowner	Affect of proposal	Details of consultation	Issues raised
			<p>mini-hydro power facility, and seemed satisfied with response.</p> <ul style="list-style-type: none"> Was concerned about whether there was possibility of Carp getting into the creek and Googong Reservoir. Explanation of proposed controls that are being put in place as part of the intake structure design and seemed to resolve his concerns to his satisfaction.
Landholder K	Potentially impacted by flows / noise.	<p>Letter sent inviting comment and schematic plans via mail, Wednesday 4 November 2009</p> <p>Follow up phone call made, not returned.</p>	No further comment provided, although detailed submissions made during formal consultation during public exhibition of the draft EIS/EA. (see also comment by Individuals 3 & 7 - 1.5 Summary of submissions received).

1.4 Community organisations

The following organisations have a direct interest in the proposed alternate (upstream) discharge.

Table 3 - interested organisations

Community Organisation	Level of Interest	Detail of consultation	Issues raised
Mogo Aboriginal Local Land Council – also representative community organisation	High Also are landowner whom is impacted by flows.	<ul style="list-style-type: none"> Letter sent inviting comment and schematic plans via email, Wednesday 4 November 2009. Phone call received 2/11/09 and invitation for ACTEW representatives to attend Board meeting in Mogo NSW on Monday 9/11/09. ACTEW attended Mogo Local Aboriginal Land Council Board Meeting on 9/11/09 in Mogo NSW. 	<ul style="list-style-type: none"> A presentation was made to Mogo Local Aboriginal Land Council in Mogo, at a regular board meeting. No comments regarding the upstream output were given, but did talk at length about the role of the Mogo Local Aboriginal Land Council if construction commences.
Burra and Urla Residents and Ratepayers Association	High Representative of the community – particularly landowners who will be impacted by flows.	<ul style="list-style-type: none"> Letter sent inviting comment and schematic plans via email, Wednesday 4 November 2009. Email received from B.U.R.R.A President 5/11/09 Advice that maps and information would be posted on the B.U.R.R.A website 9/11/09. Letter received 20 November 2009 B.U.R.R.A. Copy of draft Fluvial Geomorphology report emailed to Secretary and Chair of UMCCC 20/11/09. Copy of draft Aquatic Ecology 	<p>Indicated that B.U.R.R.A were pleased that consultation on the upstream option was occurring.</p> <p>Letter sent by President of B.U.R.R.A stated;</p> <ul style="list-style-type: none"> Thanked ACTEW for informing them of the intention to propose the 'upstream discharge' and for meeting on site to explain the proposal and seek feedback. B.U.R.R.A supports the upstream option which has significant advantages over the original outfall location. These advantages our outlined in their original submission dated 18

Community Organisation	Level of Interest	Detail of consultation	Issues raised
		Report sent via email 27/11/09.	<p>September 2009.</p> <ul style="list-style-type: none"> • Pleased that ACTEW has taken these points into consideration in determining the preferred outfall location.
Burra Pipeline Sub-Committee	High Sub committee of B.U.R.R.A in favour of upstream outlet.	<ul style="list-style-type: none"> • Letter sent inviting comment and schematic plans via email, Wednesday 4 November 2009. • Site visit with representatives of B.U.R.R.A pipeline sub-committee to upstream outlet discharge and mini-hydro power facility location 12/11/09. 	As above.
Molonglo Catchment Group	High Interested in any increased impact to the Creek.	<ul style="list-style-type: none"> • Letter sent inviting comment and schematic plans via email, Wednesday 4 November 2009. • Email received on 5 November advising that Coordinator had changed. • Email sent offering meeting / briefing 5/11/09. • Phone call made to enquire whether comment was to be made by Molonglo Catchment group 9/12/2009. • Email received by Molonglo Catchment Coordinator in support of UMCCC position. 	<ul style="list-style-type: none"> • Opposed to discharge of water into Burra Creek, and preference for pipeline to directly discharge into Googong Reservoir. • Formally support the letter sent by the UMCCC on 18/11/09.
Burra Landcare	High Have made submission relating to concerns over discharge of water into Burra Creek and supportive of	<ul style="list-style-type: none"> • Letter sent inviting comment and schematic plans via email, Wednesday 4 November 2009. • Email received from Chair, 	<ul style="list-style-type: none"> • Opposed to discharge of water into Burra Creek, and preference for pipeline to directly discharge into Googong Reservoir.

Community Organisation	Level of Interest	Detail of consultation	Issues raised
	<p>UMCCC submission. Have previously stated opposition to upstream discharge due to bends in creek in this section and increased impact to the creek.</p>	<p>restating position on discharge into Burra Creek.</p> <ul style="list-style-type: none"> • Copy of draft Fluvial Geomorphology report emailed to Secretary and Chair of UMCCC 20/11/09. • Copy of draft Aquatic Ecology Report sent via email 27/11/09. • Letter received from Chair 7/12/09 	<ul style="list-style-type: none"> • Letter to Managing Director dated 7/12/09 stated; <ul style="list-style-type: none"> – Significant doubt remains as to the future wellbeing of Burra Creek. – Preferred solution, should the project proceed, is to terminate the pipeline at the Googong Reservoir, below the London Bridge Arch. – Opposed even more strongly to the amended proposal which exposes greater length of the Creek. – Believe the proposed change warrants full public consultation. – Concerned about short time provided to consider amended ecological studies related to the additional length of creek. With only two of the several documents received at this stage.
<p>Upper Murrumbidgee Catchment Coordinating Committee (UMCCC)</p>	<p>High Have made submission relating to concerns over discharge of water into Burra Creek.</p>	<ul style="list-style-type: none"> • Letter sent inviting comment and schematic plans via email, Wednesday 4 November 2009. • Email received with invitation to present to UMCCC meeting 9/11/09 November 2009. • Email sent by UMCCC Coordinator to UMCCC membership advising of invitation to comment and upcoming presentation to UMCCC on 	<ul style="list-style-type: none"> • Letter to Managing Director dated 18/11/09 stated; <ul style="list-style-type: none"> – Concerned over the consultation process in relation to the alternate outlet option. – Concerned that specialist studies were not yet available for review by the community group, although response to the proposal was expected. – Concerned that ACTEW seems

Community Organisation	Level of Interest	Detail of consultation	Issues raised
		<p>11/11/09.</p> <ul style="list-style-type: none"> • Presentation to UMCCC 11/11/2009 by project manager. • Letter received regarding consultation process on 18/11/09. • Response to letter by Managing Director, ACTEW Corporation sent 27/11/09, outlining reasons for consultation, acknowledgment of opposition and extending deadline for comment until the 9 December 2009. • Copy of draft Fluvial Geomorphology report emailed to Secretary and Chair of UMCCC 20/11/09. • Copy of draft Aquatic Ecology Report sent via email 27/11/09. • Email exchange advising of extension of time for comment 27/11/09, and UMCCC expressing its disappointment at the time allowed for consultation. • Request for list of other (environmental) reports relating to Upstream discharge by Chair of UMCCC 30 November 2009. • Request made for certain reports made by Chair 1/12/09. • Commitment given to provide when finalised 20/11/09. • Email received 11/12/09 by Mark Sullivan by Chair of UMCCC stating that letter from UMCCC 	<p>to have already reached a decision on the alternative.</p> <ul style="list-style-type: none"> - Seeking a written response to their submission on the draft EIS/EA. • Email from UMCCC Chair to Managing Director stated; <ul style="list-style-type: none"> - The letter from UMCCC dated 18/11/09 should be regarded as a submission; - UMCCC does not regard it as appropriate that the project proponent receive submissions on this proposed alteration. Receipt and consideration of such submissions is properly the business of the assessing authorities in NSW and the ACT. Regrettably, it seems that the system as currently constituted leaves us with little alternative. - UMCCC sees nothing in the revised proposal (or the limited number of draft reports provided to date) to warrant a change in the view expressed in its submission on the EIS/EA, i.e. that the pipeline should not be approved and that, if it is approved, it should be approved only on condition that it extends to the Googong reservoir.

Community Organisation	Level of Interest	Detail of consultation	Issues raised
		dated 18/11/09 should be considered as a Submission to the consultation on the upstream output.	
Conservation Council	High Have made submission relating to concerns over discharge of water into Burra Creek and suggested that the pipeline run all the way to Googong.	<ul style="list-style-type: none"> • Letter sent inviting comment and schematic plans via email, Wednesday 4 November 2009. • Follow up email sent inviting comment due to deadline for comments sent 9/12/09. • No comments received. 	<ul style="list-style-type: none"> • No comments received.
Queanbeyan Landcare	High Made submission	<ul style="list-style-type: none"> • Letter sent inviting comment and schematic plans via email, Wednesday 4 November 2009. • No further comments received. 	<ul style="list-style-type: none"> • No comments received
Waterwatch	High Have indicated they hold baseline monitoring data of flows in Burra Creek and are interested in any variations.	<ul style="list-style-type: none"> • Letter sent inviting comment and schematic plans via email, Wednesday 4 November 2009. • Email sent requesting Waterwatch Data of Burra Creek. • Invitation to attend Waterwatch meeting on 16 December 2009. • No further comments received. 	<ul style="list-style-type: none"> • No comments received. • Director Water Security Major Projects to attend Waterwatch meeting on 16 December 2009.

1.5 Summary of submissions related to the alternate discharge

A number of submissions were made during the public exhibition of the Murrumbidgee to Googong Water Transfer draft EIS/EA.

Table 4 - Summary of issues raised in relation to the proposed Alternate discharge

Author	Issues raised
Individual A	<ul style="list-style-type: none"> • Recommends that the pipeline continues down Williamsdale Road until it reaches the creek for an early upstream release, to avoid impacts of construction and noise from air vents on residents of MacDiarmid Road. • Benefit of early discharge on the health of Burra Ck. • Funds saved from the shorter pipeline could be used for community benefit.
Individual B	<ul style="list-style-type: none"> • Suggests a more cost effective environmentally sounds and community friendly outcome could be achieved by continuing the pipeline for the length of Williamsdale Road and discharging on the western side of Burra Rd near its junction with the Williamsdale Road. • Advantages of earlier discharge options are: <ul style="list-style-type: none"> – - fewer properties to cross – - less disruption to flora and fauna – - opportunity to improve degraded section of Burra Ck – - avoid disruption to Yellow Box grassland near currently proposed outflow location – - no need to cross Burra Rd with the associated traffic impact – - shorter pipeline is more cost effective.
Individual C	<p>Object to the current pipeline route as it will cause on-going disruption to my rural lifestyle particularly from noise. Recommend that the pipeline continue down Williamsdale Road to release the water into the creek near the existing low level crossing.</p>
Individual D	<p>Suggest the route continue down Williamsdale Road releasing the water to the creek near the low level crossing. This would avoid the impact on households on MacDiarmid Rd.</p>
Individual E	<p>Suggest the pipeline route be amended to discharge near the low-level crossing on Williamsdale Road. There are environmental benefits to this option as it may stabilise the aquatic ecosystem and limit ongoing disruption.</p>
Individual F	<p>Propose a minor change to the pipeline route to continue down Williamsdale Road and release at the upstream junction of Holden and Burra Creek near the low level crossing on Williamsdale Road.</p> <p>This alternative route would avoid the need to removal well established poplar trees and minimise the noise pollution of local residents. By releasing upstream the natural water flow and natural ponding of the creek.</p>

Author	Issues raised
<p>Individual G</p>	<p>Would suggest better option would be to continue the pipeline down Williamsdale Road and have the water released into Burra Creek in the vicinity of the existing low level crossing and proposed bridge.</p> <p>Benefits of this option apart from obvious commercial savings are: avoidance of noise close to houses; less disruption to landholders rural amenity; greater benefit to the environment with the opportunity for restorative work to be done around the junction of Holden and Burra Creeks and upstream section of Burra Creek.</p> <p>The effect of construction of a mini-hydro plant in relatively close proximity is an issue that concerns me.</p>
<p>Individual H</p>	<p>Support the proposal and ask that ACTEW consider that the entrance point for water to Burra Creek be moved to the low level crossing at Williamsdale Road. This would be a cost saving to ACTEW, but more importantly to us is the potential benefits to an increased area of Burra Creek through rejuvenation of local ecology. The route would reduce impacts on landholders and provide potential access to water for local bushfire brigade.</p>
<p>B.U.R.R.A</p>	<ul style="list-style-type: none"> • Recommends that ACTEW adopt the 'early upstream option' of continuing down Williamsdale Rd to discharge in the vicinity of the junction of the Williamsdale and Burra Roads. Benefits include: <ul style="list-style-type: none"> - - avoid need to blast around Lagoon area and the associated impacts on residents - - opportunity to rehabilitate 2kms of Burra Creek - - provide a location to draw water close to the Bush Fire Brigade station in case of bush-fire emergency - - avoid impacts on Yellow Box grassland near the currently proposed outlet and the London Bridge Arch - - Avoid need to cross Burra Road and associated negative traffic impacts - - cost savings which could be injected into a local community project
<p>Individual I</p>	<p>The positive side of the pipeline for Burra residents is that when the water is flowing it will provide a substantial water course which would contribute to the recreational potential of the area. A walking track along this part of the Burra Creek would be a great addition to the facilities operated by Googong Foreshores.</p>
<p>Individual J</p>	<ul style="list-style-type: none"> • Opposed to the current route in favour of what is known as the 'early upstream discharge' that will take the pipeline close to the junction of Williamsdale and Burra Roads for discharge. • The 'early upstream discharge' option is not in an environmentally sensitive location as it is currently overrun by blackberry bushes, willow trees and reeds. • The 'early upstream discharge' option will reduce the impact of the pipeline on 8 residences in MacDiarmid, Homestead and Lagoon Areas; • The following negative issues arise from the current proposed route:

Author	Issues raised
	<ul style="list-style-type: none"> - large number of air vents close to residences and the associated noise impacts; - unpredictable sudden noise from these vents may cause livestock to stampede; - at least two creek crossing with the associated potential for damage to the creek bed; - Impacts upon 8 residences with stock holdings and the associated costs of relocating stock; - Significant blasting is required for the existing route; and - Current discharge location is in an area of Yellow Box Grassland and the route crosses endangered fauna and now gum areas, which could be avoided if the alternate route was adopted. - Cost savings to ACTEW from the alternate route could be used to rehabilitate approximately 2km of Burra Creek which would bring wildlife back into the area and improve the visual amenity of the creek. This could also include the creation of a walking track from the Williamsdale Road, along the creek and into the Googong Foreshores reserve.
<p>Individual K</p>	<ul style="list-style-type: none"> • Opposed to the current route in favour of what is known as the 'early upstream discharge'. • The 'early upstream discharge' option is not in an environmentally sensitive location as it is currently overrun by blackberry bushes, willow trees and reeds. • The 'early upstream discharge' option will reduce the impact of the pipeline on 8 residences in MacDiarmid, Homestead and Lagoon Areas • The following negative issues arise from the current proposed route: <ul style="list-style-type: none"> - large number of air vents close to residences and the associated noise impacts. - unpredictable sudden noise from these vents may cause livestock to stampede - at least two creek crossing with the associated potential for damage to the creek bed. - Impacts upon 8 residences with stock holdings and the associated costs of relocating stock - Significant blasting is required for the existing route. - Current discharge location is in an area of Yellow Box Grassland and the route crosses endangered fauna and now gum areas, which could be avoided if the alternate route was adopted. • Cost savings to ACTEW from the alternate route could be used to rehabilitate approximately 2km of Burra Creek which would bring wildlife back into the area and improve the visual amenity of the creek. This could also include the creation of a walking track from the Williamsdale Road, along the creek and into the Googong Foreshores reserve.
<p>Individual L</p>	<ul style="list-style-type: none"> • Supportive of the alternative upstream discharge option due to the following benefits: <ul style="list-style-type: none"> - - avoid impact on properties along Macdiarmid and Lagoon Road;

Author	Issues raised
	<ul style="list-style-type: none"> – avoid a rocky section of ground in the Lagoon area negating the need for blasting; – possible benefits to degraded section of Burra Creek; – avoid the need for the pipeline to cross Burra Road and the associated traffic hazards; and – possible cost savings to ACTEW that could then be returned to the community in the form of road improvements and environmental projects.
Individual M	<ul style="list-style-type: none"> • Do not support the current route outlined in the draft EIS. Recommend the early discharge option to avoid properties in the Macdiarmid Road area, provide benefits to degraded area of the creek and allow for cost savings for ACTEW which could be reinvested into community projects. • If the mini-hydro is built at the discharge point the visual impact of this will still be easier to mitigate than the many extra air vents the existing route requires.
Layos Pty Ltd	Submit that the route should follow Williamsdale Road to the Crossing at the intersection with Burra Road and release water at that point to flow down the Burra Creek towards Googong Dam so that life returns to the Creek and the eco systems thrive once more.
Individual N	<ul style="list-style-type: none"> • Submit that the route should follow Williamsdale Road to the Crossing at the intersection with Burra Road and release water at that point to flow down the Burra Creek towards Googong Dam so that life returns to the Creek and the eco systems thrive once more. • Submit that the route should follow Williamsdale Road to the Crossing at the intersection with Burra Road and release water at that point to flow down the Burra Creek towards Googong Dam so that life returns to the Creek and the eco systems thrive once more.
Total	<ul style="list-style-type: none"> • <i>There were 16 upstream submissions</i>

1.6 Discussion of consultation results

Targeted consultation with 11 landowners directly affected by the proposed upstream outlet and 8 representative community organisations, resulted in comment by seven landowners and five community organisations. In addition the substance of the 16 submissions received during formal consultation during public exhibition of the draft EIS/EA has also been considered.

Based on both comments made during this targeted consultation and submissions received, more respondents were in favour of the outlet location being in the vicinity of the low level crossing on Williamsdale Road near the junction of Burra and Williamsdale Roads over the previous pipeline route and discharge location. This preference is most strongly articulated during in submissions received during the public exhibition of the draft EIS/EA.

It is noted however, that some community organisations, namely Burra Landcare, UMCCC and Molonglo Catchment group remain opposed to discharge of water into Burra Creek, and would prefer to see the pipeline route be altered in favour of a direct discharge of water directly into Googong Reservoir.

While there has been no direct preference in relation to the location of the mini-hydro power facility at the same location, there was support for the current design which would see the mini-hydro power facility constructed mainly underground, and that screening be put in place (this includes retention of existing poplars near the site).

A summary of key issues in relation to the upstream outlet which the community raised during this consultation and which have been addressed in the EIS include:

- Retention of existing riparian rights for domestic use (addressed in the Social Impact Assessment Addendum);
- Creek erosion control (addressed in Chapter 10);
- Maintenance of flood gates located in Burra Creek to prevent straying of stock (refer Chapter 10);
- Protection of existing flora and fauna and aquatic ecology, and that wildlife that may return to the creek as a result of increased flows are monitored and are protected from increasing or decreasing flow levels in the creek (refer Chapter 27);
- Development of a comprehensive monitoring program and adaptive management plan in partnership with affected landowners and representative community organisations (refer Chapter 27);
- Possible use of cost savings by reduced pipeline length and impact to landowners be directed to the community in the form of road improvements and environmental projects in the local community (addressed in the Social Impact Assessment Addendum); and
- Opposition to the Murrumbidgee to Googong Water Transfer discharging water into Burra Creek, and preference for pipeline to directly discharge into Googong Reservoir (refer Chapter 7).

1.7 Conclusion

As is evidenced by results of this targeted consultation and submissions received, there remains a variation of views in relation to the issue of discharge of water into Burra Creek.

However of the respondents who are satisfied that the water be discharged into the creek, most prefer that that the outlet is located upstream, in the vicinity of the low level crossing on Williamsdale Road near the junction of Burra and Williamsdale Roads.

It is recommended that the views provided during this consultation and during the formal consultation undertaken during public exhibition of the draft EIS/EA be taken into consideration for the purposes of deciding on a preferred location of the upstream outlet, that these views be addressed in the EIS and that discussions with the community be ongoing in relation to all issues raised during this process.

Attachment 2 Letter to affected landowners

Name
Address

Friday 30 October 2009

Dear

The Murrumbidgee to Googong Water Transfer involves transferring water from the Murrumbidgee River through an underground pipeline to Burra Creek in NSW, which flows into Googong Reservoir. It is one component of Water Security – Major Projects, a suite of water security infrastructure initiatives now being implemented by ACTEW Corporation to secure the region's water supply.

Public Exhibition of the projects Draft Environmental Impact Statement (ACT) and Environmental Assessment (NSW) (EIS/EA) formally closed on 18 September 2009 in both the ACT and NSW. ACTEW is now preparing responses to the submissions received. We are aiming to finalise and resubmit the EIS/EA before the end of the year.

In response to community feedback during 2009 and as specifically outlined in submissions during the public Exhibition of the EIS/EA, ACTEW has decided to undertake a specific consultation on a proposed alternate discharge point in Burra Creek – known by the community as the 'upstream' discharge.

This proposed 'upstream' discharge is located in the vicinity of the low level crossing on Williamsdale Road near the junction of Burra and Williamsdale Roads.

ACTEW intends to assess and submit this upstream discharge proposal as part of its preferred project report, and will replace the currently assessed discharge point further downstream in Burra Creek, East of Burra Road, located just within the Googong Foreshores.

ACTEW has already commissioned fluvial geomorphology and aquatic ecology specialists to assess the impact of the proposed 'upstream' discharge and this plan aims to provide a framework for engagement of affected landowners and interested community organisations in relation to this proposal.

ACTEW has also proposed to reduce green house gas emissions where practical and offset all remaining greenhouse gas emissions. As part of this commitment a mini-hydro power generation facility will be incorporated into the project. The mini-hydro will largely be housed underground, located close to Burra Creek at the discharge point, and will recover about 25 – 30 per cent of the total electricity used for pumping of the water.

We have identified that your property could be directly affected by this proposal and would like to engage in a discussion with you about it. Specifically we would like to seek your views in order to refine the location and design of the upstream discharge and mini-hydro facility, and in order to minimise any potential impacts of the proposal.

Please find enclosed a detailed design drawing of the proposed location of the upstream discharge point and the mini-hydro facility for your consideration.

We invite you to provide written comment on the proposal, and if possible organise a time to come and speak directly to you about it. Adina Cirson, the Murrumbidgee to Googong Water Transfer Community Liaison Officer will be in contact with you in the next few days to see if you are interested in meeting with members of the project team to discuss in detail the alternate (upstream) proposal.

To ensure that we can take your comments into consideration before submitting our documents to NSW Department of Planning, please provide written comments must be received by Monday 16 November 2009 and can be sent to:

ACTEW Corporation – Water Security Major Projects

GPO 366

Canberra ACT 2601

Attention: Adina Cirson

Or by email to: adina.cirson@actew.com.au

Thank you for your continued interest and contribution to the Murrumbidgee to Googong Transfer project, and if you have any questions, please feel free to contact Adina the Water Security – Major Projects information line on 6248 3563.

Yours Sincerely



Graham Costin
ACTEW M2G Project Manager
Bulk Water Alliance
Water Security Major Projects

Attachment 1 Letter to interested community organisations

Name
Address
Organisation

Friday 30 October 2009

Dear

The Murrumbidgee to Googong Water Transfer involves transferring water from the Murrumbidgee River through an underground pipeline to Burra Creek in NSW, which flows into Googong Reservoir. It is one component of Water Security – Major Projects, a suite of water security infrastructure initiatives now being implemented by ACTEW Corporation to secure the region's water supply.

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In response to community feedback during 2009 and as specifically outlined in submissions during the public Exhibition of the EIS/EA, ACTEW has decided to undertake a specific consultation on a proposed alternate discharge point in Burra Creek – known by the community as the 'upstream' discharge.

This proposed 'upstream' discharge is located in the vicinity of the low level crossing on Williamsdale Road near the junction of Burra and Williamsdale Roads.

ACTEW intends to assess and submit this upstream discharge proposal as part of its preferred project report, and will replace the currently assessed discharge point further downstream in Burra Creek, East of Burra Road, located just within the Googong Foreshores.

ACTEW has already commissioned fluvial geomorphology and aquatic ecology specialists to assess the impact of the proposed 'upstream' discharge and this plan aims to provide a framework for engagement of affected landowners and interested community organisations in relation to this proposal.

ACTEW has also proposed to reduce green house gas emissions where practical and offset all remaining greenhouse gas emissions. As part of this commitment a mini-hydro power generation facility will be incorporated into the project. The mini-hydro will largely be housed underground, located close to Burra Creek at the discharge point, and will recover about 25 – 30 per cent of the total electricity used for pumping of the water.

We note that **[your organisation]** has a direct interest in the Murrumbidgee to Googong Water Transfer, and note your recent submission as part of the formal public exhibition of the EIS/EA. As such we would like to seek the views of **[your organisation]** in order to refine the location and design of the upstream discharge and mini-hydro facility, and in order to minimise any potential impacts of the proposal.

Please find enclosed a detailed design drawing of the proposed location of the upstream discharge point and the mini-hydro facility for your consideration.

We invite **[your organisation]** to provide written comment on the proposal, and if possible organise a time to meet with you and other representatives of **[your organisation]** in the next 2 weeks. Adina Cirson, the Murrumbidgee to Googong Water Transfer Community Liaison Officer will be in contact with you in the next few days to see if you are interested in meeting with members of the project team to discuss in detail the alternate (upstream) proposal.

To ensure that we can take your comments into consideration before submitting our documents to NSW Department of Planning, please provide written comments must be received by Monday 16 November 2009 and can be sent to:

ACTEW Corporation – Water Security Major Projects

GPO 366

Canberra ACT 2601

Attention: Adina Cirson

Or by email to: adina.cirson@actew.com.au

Thank you for your continued interest and contribution to the Murrumbidgee to Googong Transfer project, and if you have any questions, please feel free to contact Adina the Water Security – Major Projects information line on 6248 3563.

Yours Sincerely



Graham Costin
ACTEW M2G Project Manager
Bulk Water Alliance
Water Security Major Projects

Appendix E Register of comments made and ACTEW's response

Comment	Relevant Section modified in the EIS	ACTEW Response
Heritage Council of NSW		
Notes that comments submitted as part of the July 2009 review have not been incorporated or reference to into the new doc.	Chapter 4	Comments arising from the adequacy review process of the draft EIS/EA were responded to directly to the NSW Department of Planning. This included the comments raised by the NSW Heritage Council, which have been addressed in the EIS. Chapter 4 discusses consultation that occurred outside the adequacy review process.
Recommendations in Appendix I be implemented to minimise impact on identified items of heritage significance	Chapters 14 and 15	Comment noted and agreed. Recommendations in Appendix I will be implemented as discussed in Chapters 14 and 15.
Detailed mitigation strategies be implemented for unexpected discoveries of the types of heritage listed as potentially occurring within the project boundaries including appropriate archaeological methodologies for the discovery of 'relics'	14.5	An unanticipated discovery protocol will be drafted and included within the Indigenous Heritage Management Sub Plan of the Construction Environmental Management Plan. The protocol will address both Indigenous and non-Indigenous finds and comply with the requirements of the ACT and NSW statutory authorities. A copy of the proposed Unanticipated Discovery Protocol has been included in Appendix 8 of the amended cultural heritage report (the previous version of which was published as Appendix I of the draft EIS/EA
If during construction any evidence of previously unidentified heritage items or archaeological relics is found that the Heritage Branch be notified under S146 of the Heritage Act, and appropriate mitigation strategy is enacted.	14.5	An unanticipated discovery protocol will be drafted and included within the Indigenous Heritage Management Sub Plan of the Construction Environmental Management Plan. The protocol will address both Indigenous and non-Indigenous finds and comply with the requirements of the ACT and NSW statutory authorities. A copy of the proposed Unanticipated Discovery Protocol has been included in Appendix 8 of the amended cultural heritage report (the previous version of which was published as Appendix I of the Draft EIS/EA
Murray Darling Basin Authority		
Concerned about the impacts of the project on natural flow downstream of Angle Crossing, the flow depth and velocity downstream of Angle Crossing and flow leaving the ACT. In particular notes difference in	9.4.1	Additional discussion on the impact of this preferred project on natural water flows in the Murrumbidgee has been included at 9.4.1 and in more detail in addendum to Appendix C. The impact of this preferred project on river flow is

Comment	Relevant Section modified in the EIS	ACTEW Response
estimated impacts between statements in the EA and analysis of the last 10 years data.		assessed as being low.
Request that the EA consider impact on average salinity at Morgan and Murrumbidgee River at Halls Crossing	9.4.1	The EIS now includes specific detail on salinity at 9.4.1. With regard to downstream salt levels, total flows, and thus Total Dissolved Solids, are almost unchanged at Hall's Crossing. However, during low flows, salinity is likely to be slightly higher at Hall's Crossing (northern ACT Border) as a result of the Murrumbidgee to Googong Water Transfer project
Request that the EA consider operating rules with relation to the environment requirements of Murrumbidgee River between Angle Crossing and Burrinjuck Dam	6.9, Chapter 27	The current proposal is to commence operation using the rules outlined in Section 6.9 of the EIS, which are aimed at protecting the downstream environmental flows in the Murrumbidgee River and allowing spare reservoir volume for natural inflows to fill Googong reservoir. These operating rules are based on ACTEW experience at the Cotter pumping station and represent an informed approach to setting a baseline. Under these rules, pumping will only occur when there is sufficient water flowing in the river. In accordance with the proposed adaptive management regime described in Chapter 27, the rules will be continuously under review and will be amended, if necessary, based on input from the monitoring programme.
Do not have any concerns with construction of pipeline. Interested in impacts on water quantity, quality and consumption and would like to be kept informed	Chapter 4	ACTEW is committed to continued liaison and discussion with key stakeholders in this preferred project. Information will continue to be provided to stakeholders on matters including, water quantity, quality and consumption. This includes with regulatory and policy development groups.
Department of Environment, Climate Change and Water		
Draft EIS/EA has not addressed ambient water objectives for Burra Ck.	11.1.1, 11.2.6, 28.1	Water quality objectives have been discussed further in sections 11.1.1 and 11.2.6 of the EIS.
Believes an Environment Protection Licence (EPL) will be required due to levels of soil excavation. Requires the proponent to justify why an EPL is not required.	19.2.1	All necessary approvals will be sought from necessary authorities, including an EPL for soil excavation as required.
EA has inconsistencies in flow-rate calculations and impacts	9.4.1; 10.3.1	Additional discussion on the impact of this preferred project on natural water flows in the Murrumbidgee River and Burra Creek has been included at Chapters 9 and 10. In particular data on river and creek flows has been expanded in sections 9.4.1 and 10.3.1
EA requires further Aboriginal Cultural Heritage Assessment	14.5	Further Aboriginal cultural heritage assessment is to be conducted as part of the required actions in the Indigenous Heritage Management Sub Plan of the Construction Environmental Management Plan. These actions involve the testing of known and potential archaeological deposits to determine the most appropriate strategy for impact mitigation, such as surface artefact collection and/or salvage excavation.

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>Needs to provide an offset proposal for biodiversity impacts of the proposal.</p> <p>The following water issues are noted:</p> <ul style="list-style-type: none"> - Does not accept that the proposed flow regime will not result in detrimental impact to Burra Ck - omission of available water quality data undermines the integrity of the assumptions, conclusions, significance of impacts and associated management actions - assessment of water quality/flow objective is inadequate due to failure to apply historical data for Burra Ck - There is no supporting evidence that releases from Tantangara will not affect water quality in the Murrumbidgee at Angle Crossing - The statement in table 12.5 'Given the observed similarity between nutrient levels between Murrumbidgee Rv and Burra Creek the proposed works are unlikely to adversely affect nutrient concentrations in Burra Creek' is not justified. - the magnitude of adverse effects on Burra Ck as a result of the increased flow regime has been underestimated and based on inconsistencies and conclusions drawn from this assessment cannot be used to validate consent conditions. 	<p>13.4</p> <p>Chapters 9-12</p>	<p>An offsets strategy is being developed in consultation with regulatory government agencies. The EIS sets out the approach and concepts to be included in offset strategy.</p> <p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail depends on the Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed..</p> <p>The impact on Murrumbidgee River from Tantangara flows is expected to be insignificant given the small releases and in stream ecology is expected to benefit from the additional water in the River. These impacts will be assessed in more detail as part of any additional approvals process which may apply to the Tantangara Transfer project.</p> <p>ACTEW has made a commitment to upgrade Burra Creek water quality monitoring and to develop site specific trigger values using ANZECC guidelines which will form the basis for ecological monitoring and potential modification to the operational pumping regime.</p> <p>Table 12.5 has been deleted from Chapter 12.</p>
<p>The following aquatic ecology issues are noted:</p> <ul style="list-style-type: none"> - The Aquatic Impact Assessment fails to demonstrate the proposed transfer flow would be sustainable in the long-term for fish habitation and/or breeding due to uncertainty and variability surrounding the conditions set for the project. - Do not accept any risk of introduction of Carp, Oriental Weatherloach or the EHN virus into Burra Ck or Googong Reservoir. Proponent should be required to take all necessary steps to avoid this. - impacts on riparian and in-stream vegetation needs to be more fully assessed - EA fails to demonstrate the capacity of riparian vegetation to recover after frequent inundation, or the benefit of the 48 hour ramping mechanism. - Mitigation measures are required for the reduction in overall diversity of aquatic habitats in Burra Creek from the loss of pool habitats - concerned if recent higher levels of turbidity and nutrients in the 	<p>Chapters 9, 10, 11, and 12 (12.2.5, 12.3.1), Appendix F</p>	<p>In response to issues regarding aquatic ecology and the impacts of this preferred project on Burra Creek / Murrumbidgee River additional information has been provided in the EIS with respect to hydrology, geomorphology and aquatic ecology. This can be found in chapters 9, 10, 11 and 12. Further details addressing the ENH Virus are provided in section 12.2.5 of the EIS. Section 12.3.1 provides further assessment on riparian vegetation.</p> <p>The ACTEW commitment to upgrade Burra Creek water quality monitoring and to develop site specific trigger values using ANZECC guidelines which will form the basis for ecological monitoring and potential modification to the operational pumping regime</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>Murrumbidgee Rv continue, there is greater potential for permanent impact on the aquatic ecology of Burra Ck.</p>	<p>13.1, 13.1.1, 13.1.2, 13.3.3, Appendix H</p>	<p>ACTEW recognises the importance of delivering the preferred project within established environmental objectives including the protection of threatened flora and fauna. However it agreed through negotiation with DECCW that with the exception of targeted surveys for Pink Tailed Worm Lizard no additional assessment of threatened flora and fauna will be required.</p>
<p>Do not support the relocation of platypus young and request that the project is modified to avoid any works in the riparian areas during the breeding season.</p>	<p>12.3.2</p>	<p>In response to issues regarding impacts of this preferred project on platypus further details are provided in section 12.3.2. No Platypus was encountered during the survey, but the species has been observed in Burra Creek. The proposed increase of up to 100 ML/day may induce a positive influence on any existing populations within Burra Creek. Increased flow may provide greater access to foraging areas and decreasing the risk of predation rising from the lack of suitable habitat. Depending upon the timing and extent of flows, increased water levels may potentially have an impact on dependent young in nesting burrows during the breeding season. The increase in flows are likely result in positive changes to Platypus food sources. Water transfers will provide additional habitat for macroinvertebrates and increase the foraging areas for Platypus by enhancing connectivity between pools.</p>
<p>Additional targeted surveys for threatened flora is required.</p>	<p>13.1, 13.1.1, 13.1.2, 13.3.3</p>	<p>ACTEW recognises the importance of delivering the preferred project within established environmental objectives including the protection of threatened flora and fauna. However it agreed through negotiation with DECCW that with the exception of targeted surveys for Pink Tailed Worm Lizard no additional assessment of threatened flora and fauna will be required.</p>
<p>Not clear in the EA that the proponent has realigned the route to avoid impacting on the Swainsona recta site.</p>	<p>13.3.2, 13.6.1</p>	<p>ACTEW acknowledges this issue and has made a commitment to provide a 15m fenced easement in these areas to minimise the impact on Swainsona Recta and other native species habitat. The proposed route has been inspected with DECCW on a number of occasions.</p>
<p>An adequate biodiversity offset strategy must be developed and secured before the commencement of works.</p>	<p>13.4</p>	<p>An offsets strategy is being developed in consultation with regulatory government agencies. The EIS sets out the approach and concepts to be included in offset strategy.</p>
<p>Supports noise assessment and advises this should make up part of a Construction Noise Management Plan which should also include: - examination of all reasonable and feasible noise mitigation measures, including alternative construction methods where potential noise exceeds the relevant objectives</p>	<p>20.6.1</p>	<p>ACTEW is committed to the application of a pro-active construction noise and vibration management sub-plan for potential sources of noise and vibration in order to minimise impacts. EPA and DECCW endorsement will be required for this management plan. Appropriate auditing and monitoring of the construction noise and vibration management sub-plan will be detailed in the</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
<ul style="list-style-type: none"> - description and commitment to work practices which limit noise - extent of noise monitoring - procedures for notifying residents - contingency plans in case of non-compliance or complaints - site contact person 	19.3	<p>plan itself. This will be achieved by the application of specific mitigation measures and noise monitoring, coupled with clear communication with local residents and noise complaint handling procedure. These are detailed in the mitigation measures outlined in Chapter 20.</p>
<p>Notes proposal should include waste management plan that ensures all soil is classified, with particular care when classifying spoil as Virgin Excavated Natural Material.</p>	14.1.4, 14.4	<p>A waste management document will be completed prior to construction.</p>
<p>Recommends consideration be given to undertaking additional subsurface investigations in respect to Aboriginal Cultural Heritage prior to granting of conditions of consent.</p>	14.1.1	<p>A sample based program of archaeological subsurface investigations was conducted as part of the Draft EIA/ES assessment. This program provided a basis for assessing the potential that high value archaeological deposits may occur within the proposed pipeline easement and may pose a permanent constraint on the development proposal or require a significant design change. The conclusion of this analysis was that no such sites were known to occur, or predicted to occur, within the proposed development area. Further Aboriginal cultural heritage assessment involving test excavations is to be conducted as part of the required actions in the Indigenous Heritage Management Sub Plan of the Construction Environmental Management Plan. These actions are required to determine the most appropriate strategy for impact mitigation rather than evaluating an application for development approval.</p>
<p>Cannot comment on adequacy of Aboriginal Community Consultation until assessment of cultural significance by Aboriginal groups is complete.</p>	14.3.2	<p>A full outline of the Aboriginal consultation and participation conducted as part of the Draft EIS/EA program was provided in sections 2 and 12 and Appendix 1 of the cultural heritage assessment report which was included as Appendix I of the EIS. Draft documentation of the assessment results and recommendations were provided to all registered Aboriginal stakeholders with an invitation to comment on Aboriginal cultural values. All responses received are included in Appendix 1 of the cultural heritage assessment report, and were taken into account in the drafting of the recommended management strategies.</p>
<p>Definitive statements have not been provided to address the potential impacts on London Bridge, Douglas Cave and Burra Shelter 1.</p>	14.3.4	<p>The potential impact of the development on the cultural heritage values of the London Bridge formation, Douglas Cave and Burra Shelter 1 was assessed in section 15.1.1 of the cultural heritage assessment report provided as Appendix I of the EIS. Drawing upon the results of the EIS fluvial analysis, it is concluded that increased water levels at the proposed 100 ML/day will probably not radically alter the channel conditions at London Bridge and will not impact upon the sediments of Douglas Cave or Burra Shelter 1.</p>
<p>There is no discussion of the cumulative impacts to Aboriginal heritage with the Murrumbidgee to Googong Area.</p>		<p>The cumulative impact to Aboriginal heritage in the surrounding regions is extremely limited due to a number of factors:</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
		<ul style="list-style-type: none"> The net development footprint, (the area of direct impact) is small and does not affect a high proportion of any particular landform unit present within the region; A comparable suite of topographic landforms (which can be expected to include a similar archaeological resource) occur in multiple contexts, both within the Burra Creek valley and in other valleys in the region; Most of the archaeological deposits that will be impacted by the development continue and extend outside of the development footprint, therefore ensuring that a portion of the sites is retained; and Much of the pipeline easement follows, parallels or occurs in relative proximity to, established road corridors.
Three copies of the Cultural Heritage Assessment report should be sent to DECCW for entry on the Aboriginal Heritage Information Management System and Register.	No change to the EIS	Completed
Draft Statement of Commitment ; Water Quality 4. Current EA does not meet DECCW requirements for Burra Creek; specifically ambient water guidelines. Suggests proponent commit to undertaking appropriate assessment prior to any discharges into the Creek.	11.1.1, 11.2.6, 28.1	ACTEW has made a commitment that all construction discharges from the area of works will meet ACT EPA legislative requirements (for the Murrumbidgee River) and NSW DECCW legislative requirements for Burra Creek including any necessary pre-assessments (Commitment No. 4).
Suggests proponent review Section 120 of the Protection of the Environment Operations Act 1997, when designing turbidity management systems, particularly in reference to Water Quality Commitments 6 and 7.	11.2.1, Chapter 27	The reference to section 120 of the NSW Protection of the Environment Operations Act 1997 is acknowledged and is under discussion with NSW DECCW. If necessary, a pumping operational rule that allows for water turbidity will be developed and implemented but at this stage the necessity is not evident.
Statement of Commitments Aquatic Ecology 11 is not adequate. Suggest proponent make commitment to avoid works during platypus breeding season. Surveys should be undertaken and should any burrows be identified, the pipeline alignments should be reconsidered and DECCW advised.	12.3.2, 12.5.2	In response to issues regarding impacts of this preferred project on platypus further details are provided in section 12.3.2. No Platypus was encountered during the survey, but the species has been observed in Burra Creek. ACTEW have committed to inspecting the river and creek banks within the construction footprint for Platypus burrow entrances including careful excavation in small scoops with an un-toothed bucket in case a lactating female and/or dependent young are present (section 12.5.2).
Terrestrial Ecology Commitment 12; suggest this commitment should be extended to inspecting habitat for Rosenberg's Goanna	13.1.2	ACTEW recognises the importance of delivering the preferred project within established environmental objectives including the protection of threatened flora and fauna. However it agreed through negotiation with DECCW that with the exception of targeted surveys for Pink Tailed Worm Lizard no additional assessment of threatened flora and fauna will be required.
Terrestrial Ecology Commitment 13; suggest this commitment be extended to follow up surveys for little whip snake, striped legless lizard and grassland earless dragon.	13.1.2	ACTEW recognises the importance of delivering the preferred project within established environmental objectives including the protection of threatened flora and fauna. However it agreed through negotiation with DECCW that with

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>Terrestrial Ecology Commitment 16; The construction zone within the railway should not exceed further than 15m north of the proposed pipeline crossing. Recommends a protective fence be erected and asks this commitment reflect agreements made and commitments during site inspections.</p>	<p>13.3.2, 13.6.1</p>	<p>the exception of targeted surveys for Pink Tailed Worm Lizard no additional assessment of threatened flora and fauna will be required.</p> <p>ACTEW acknowledges this issue and has made a commitment to provide a 15m fenced easement within the railway. This will minimise the impact on Swainsona Recta and other native species habitat.</p>
<p>Terrestrial Ecology Commitment 17; Require the details of the offset package.</p>	<p>13.4</p>	<p>An offsets strategy is being developed in consultation with regulatory government agencies. The EIS sets out the approach and concepts to be included in offset strategy.</p>
<p>DECCW suggests a Commitment should be included regarding the management of the open trench-line, including checking for and removal of animals</p>	<p>13.6.1</p>	<p>EIS updated, the proponent will put measures in place to ensure that matters such as these are addressed appropriately to the satisfaction of regulators and agencies. This matter is specifically addressed in the EIS</p>
<p>Indigenous heritage Commitment 19; does not believe this should be a commitment as the archaeological resources within the study area remains unknown.</p>	<p>14.1.4 and 14.5</p>	<p>Section 2 of the cultural heritage assessment report, provided as Appendix I of the EIS, presents an outline of the Aboriginal consultation process and describes relevant methodological outcomes of that liaison. Where possible input from Aboriginal stakeholders regarding methodology has been adopted and this is reflected in the methodology description presented in Section 4 of that report. Responses received by stakeholders with regard to the draft cultural heritage assessment report and to Aboriginal cultural values are provided in Appendix 1. Statements regarding cultural values have been presented in the section 12 of the cultural heritage assessment report and taken into consideration with regard to the report findings and recommended impact mitigation actions. The recommendations have, in general, been ratified by the responses received.</p>
<p>DECCW recommends undertaking the additional subsurface investigations prior to granting conditions of consent.</p>	<p>14.1.4 and 14.5</p>	<p>The archaeological investigations conducted to date provide a reliable basis for concluding that the archaeological resource within the footprint of the proposed development footprint do not have archaeological values which require permanent and in situ conservation – i.e, that will require a change in pipeline design to ensure conservation. The additional subsurface investigations are required to allow the effective development and conduct of an impact mitigation program. It is the proponent's contention that such works can be affectively conducted following development approval, and can be a specified condition of that approval.</p>
<p>Indigenous heritage Commitment 21; report does not detail how the comments of registered Aboriginal groups has been considered as part of the project.</p>	<p>14.1.1</p>	<p>Section 2 of the cultural heritage assessment report, provided as Appendix I of the EIS, presents an outline of the Aboriginal consultation process and describes relevant methodological outcomes of that liaison. Where possible input from Aboriginal stakeholders regarding methodology has been adopted and this is reflected in the methodology description presented in Section 4 of</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
		<p>that report. Responses received by stakeholders with regard to the draft cultural heritage assessment report and to Aboriginal cultural values are provided in Appendix 1. Statements regarding cultural values have been presented in the section 12 of the cultural heritage assessment report and taken into consideration with regard to the report findings and recommended impact mitigation actions. The recommendations have, in general, been ratified by the responses received.</p>
<p>Indigenous heritage Commitment 18; inadequately addresses potential impacts on London Bridge, Douglas Cave and Burra Shelter 1. Does not consider cumulative impacts to Aboriginal heritage.</p>	<p>14.3.2 and 14.3.4</p>	<p>Commitment 18 is a reiteration of a concluding statement resulting from the cultural heritage assessment. The potential impact of the development on the cultural heritage values of the London Bridge formation, Douglas Cave and Burra Shelter 1 was assessed in section 15.1.1 of the cultural heritage assessment report provided as Appendix I of the Draft EIS/EA. Drawing upon the results of the fluvial analysis, it is concluded that increased water levels at the proposed 100 ML/day will probably not radically alter the channel conditions at London Bridge and will not impact upon the sediments of Douglas Cave or Burra Shelter 1. The EIS assessment indicates that the proposed development will not pose any potential for significant impact to the London Bridge formation, or potential for impact to Douglas Cave, Burra Shelter 1, or their deposits. This is in contrast to the on-going and impacts of natural flooding events. In the absence of any predicted direct impacts to the subject sites, there is no basis on which to conduct a cumulative impact assessment.</p>
<p>Site rehabilitation - suggests a commitment 'A monitoring program should be established to measure the success of the rehabilitation works and to guide any requirements for follow-up rehabilitation activities'.</p>	<p>27.3.4</p>	<p>A monitoring program will be implemented for one year after rehabilitation has begun by the construction team.</p>
<p>A commitment to preparing and implementing a waste management plan should be included.</p>	<p>19.3</p>	<p>A waste management document will be completed prior to construction</p>
<p>Suggests a commitment to implementing mitigation measures for exceeding noise limits during construction.</p>	<p>Chapter 28; S 20.6.1</p>	<p>ACTEW has made a commitment to prepare and implement a noise and vibration management sub plan as part of the construction environmental management plan to minimise the potential for impacts from noise during construction. This is detailed in table of commitments in Chapter 28. Construction noise mitigation measures are discussed in more detail in Chapter 20.</p>
<p>Suggests a commitment to implementing mitigation measures for generating dust emissions from excavation works.</p>	<p>19.3</p>	<p>The construction team will be mitigating dust emissions for all activities during construction</p>
<p>The EA should include a comprehensive assessment of predicted greenhouse gas emissions. Including direct emissions, indirect emissions from electricity; upstream and downstream emissions during construction, operation and decommissioning. - see Attachment 3</p>	<p>S 22.3</p>	<p>A comprehensive assessment of greenhouse gas emissions associated with the construction and operation of the preferred project is detailed in Appendix N of the EIS. The summary and associated discussion of this Appendix at chapter 22 has been updated in response to this submission.</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
DECCW - notes from meeting with Molonglo Catchment Group for Waterwatch, Upper Murrumbidgee Catchment Coordinating Committee and Burra Landcare Group		
<p>Concern about the validity of the Aquatic Impact Assessment, including the methodology and assumptions made. Shortcomings identified are:</p> <ul style="list-style-type: none"> - survey period too short and single location for fish survey - primarily focuses on fish neglecting to assess impacts of other aquatic biota - assessment acknowledges impact, but appropriate mitigation measures not identified - botany of a species of eucalypt in the riparian assessment around the intake structure is incorrect - lack of modelling about impacts of ramping up and down over 48 hours - lack of data on ambient water quality - reference to Waterwatch data available but not accessed - water quality data for Burra Creek incorrect due to location of monitoring in relation to Googong Res. - does not include modelling for impacts on Murrumbidgee Rv and Burra Ck - baseline data should be established prior to construction to inform proposed monitoring programs during construction - accepting inevitable transfer of carp, oriental weatherloach and the EHNVirus to Burra Creek and the Reservoir. 	<p>Chapters 10, 11, 12 (12.2.5), Appendix F</p>	<p>In response to issues regarding aquatic ecology and the impacts of this preferred project on Burra Creek additional information has been provided in the EIS with respect to hydrology, geomorphology and aquatic ecology. This can be found in chapters 10, 11 and 12. WaterWatch data has been incorporated at Appendix F. Further details addressing the ENH Virus are provided in section 12.2.5 of the EIS.</p>
<p>Concerned about the morphological impacts on Burra Ck</p> <ul style="list-style-type: none"> - flow regime used in the study appears to be based on something less than 100ML/day - macrobiology of pools was not assessed, with the loss of the pools the most significant morphological adjustment. - assessment has not adequately addressed the issue of in-channel sediments being washed up as Burra Ck returns to a low flow channel. <p>Concerned with lack of rationale supporting the justification to not pipe all the way to Googong Res.</p>	<p>Chapter 10. 6.1</p>	<p>In response to these comments chapter 10 of the EIS have been updated to include more discussion on pools, creek morphology and sediment transport. The impact assessment is based on 100ML per day as stated in section 6.1 of the EIS.</p>
<p>Concerned with lack of rationale supporting the justification to not pipe all the way to Googong Res.</p>	<p>7.3.2</p>	<p>Pipeline route options, including piping to Googong Reservoir, were assessed in 2007-2008 for their impact on social, environmental and economic criteria and ranked according to their performance. Based on the existing environment piping to Googong Reservoir ranked last of the six options. Additional information on the assessment process has been included in Chapter 7.</p>
Individual A		
<p>Recommends that the pipeline continues down Williamsdale Road until it reaches the creek for an early upstream release, to avoid impacts of construction and noise from air vents on residents of MacDiarmid Road.</p>	<p>Chapter 6 ; 23.3.2</p>	<p>ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palarang Council and community members to identify potential community benefits resulting from the preferred project is</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
		described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.
Benefit of early discharge on the health of Burra Ck.	Chapters 10, 11 and 12	In response to this comment further discussion on the impacts of flow in Burra Creek, including benefits, has been provided in Chapters 10, 11 and 12.
Benefit of early discharge on protecting remnant snow gums and poplars on MacDiarmid Road.	13.5	Response noted. In response to community submissions, ACTEW has adopted the alternate upstream outlet location.
Funds saved from the shorter pipeline could be used for community benefit.	23.3.2	A process for identifying community benefits arising from the preferred project is described in 23.3.2.
Individual B		
Suggests a more cost effective environmentally sounds and community friendly outcome could be achieved by continuing the pipeline for the length of Williamsdale Road and discharging on the western side of Burra Rd near its junction with the Williamsdale Road.	Chapter 6 ; 23.3.2	ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palarang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.
Advantages of earlier discharge options are: <ul style="list-style-type: none"> - fewer properties to cross - less disruption to flora and fauna - opportunity to improve degraded section of Burra Ck - avoid disruption to Yellow Box grassland near currently proposed outflow location - no need to cross Burra Rd with the associated traffic impact - shorter pipeline is more cost effective. 	Chapter 6 ; 23.3.2	ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palarang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.
Environment Protection Authority, ACT		
Request removal of reference to Tantangara in the operating rules for the pump station as this is still in negotiation	6.9	Current operating rules do not refer to Tantangara. Final pumping rules will incorporate Tantangara releases if necessary only once negotiations have been completed.
Incorrect reference on page 124 of the draft EIS. The reference to lower flow requirement in unrestricted conditions is inaccurate. ACTEW Corporations Licence to take Water states 'For the purposes of this licence for the months April to November inclusive, a base flow of 20ML per day or 67% of natural flow, whichever is greater, is to be maintained'	6.10	ACTEW will meet its licence requirements. Operating scenarios within these licence requirements are detailed in 6.10
3.2.1 ACT operational noise criteria. The compliance point is near as practicable to 5m from the source of noise, not the northern end of Angle Crossing Beach. A complying Noise Management Plan must be submitted to the EPA prior to commencement of works.	20.3.5; 27.3.2	A complying noise management plan will be submitted to the ACT EPA as part of the Construction Environment Management Plan required for Development Application approval. Mitigation measures that will be included in this noise management plan are detailed in chapter 20, while Chapter 27 details the

Comment	Relevant Section modified in the EIS	ACTEW Response
		components of the Construction Environment Management Plan
27.3.5 EPA recommends the proponent engage an independent environmental consultant to monitor/audit works. This would include weekly inspections with report circulated weekly to relevant contractors and stakeholders, including the EPA.	28.1	ACTEW have made a commitment to appoint an Independent Auditor to audit and ensure the commitments set out in the EIS and development application approval have been completed to the satisfaction of ACTPLA and NSW Department of Planning.
<p>Burra Urila Residents and Ratepayers Association Inc.</p> <p>Pipeline should cause minimal disruption and loss of amenity to Burra residents during and post construction.</p>	Various sections inc. 19.3, 28.1, 6.11	Environmental controls will be in place during construction (documented in EMP's) to minimise erosion and sedimentation, manage removal and stockpile of spoil, design and construct site sheds and designated plant parking/storage to minimise adverse impacts on visual amenity. The pipeline will be buried and impacted area rehabilitated following construction to prevent loss of amenity.
<p>Recommends that ACTEW adopt the 'early upstream option' of continuing down Williamsdale Rd to discharge in the vicinity of the junction of the Williamsdale and Burra Roads. Benefits include:</p> <ul style="list-style-type: none"> - avoid need to blast around Lagoon area and the associated impacts on residents - opportunity to rehabilitate 2kms of Burra Creek - provide a location to draw water close to the Bush Fire Brigade station in case of bush-fire emergency - avoid impacts on Yellow Box grassland near the currently proposed outlet and the London Bridge Arch - Avoid need to cross Burra Road and associated negative traffic impacts - cost savings which could be injected into a local community project 	Chapter 6 ; 23.3.2	ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Paterang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.
<p>Recommends that ACTEW provides sound-proofing to air vents where the noise at dwellings is likely to exceed ambient levels and that air vent noise is closely monitored.</p>	20.4.2	In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S 20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any significant levels of noise associated with the operation of the scour valves.
<p>Upper Murrumbidgee Catchment Coordinating Committee</p> <p>Has substantial objections to the impacts of the proposal in particular the impacts on Burra Ck. Not opposed to the project per se.</p>	Chapter 10 to 12	Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation,

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>The EA fails to demonstrate that the proposed flow in Burra Ck will not cause substantial damage to its ecology, and therefore fails to meet the Director-General's requirements.</p>	<p>Chapter 10 to 12</p>	<p>sediment and aquatic ecology in Burra creek are also dealt with in more detail depends on the Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed..</p> <p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed..</p>
<p>Suggests that approval be denied unless</p> <ul style="list-style-type: none"> - pipeline runs all the way to Googong Res, or - gaps and weaknesses in the EA are covered by new investigations. 	<p>7.3.1</p>	<p>Pipeline route options, including piping to Googong, were assessed in 2007-2008 for their impact on social, environmental and economic aspects. The extension of the preferred project will:</p> <ul style="list-style-type: none"> • increase the length of pipeline, resulting in increased cost, implementation time and potential for higher social and environmental impacts • Require difficult land ownership issues on Googong foreshores to be overcome; and • Achieve little in avoiding Burra Ck management issues. <p>A number of components of the EIS have been updated in response to submissions during the public exhibition period as summarised by this table.</p>
<p>Supports the paper's examples of weakness in the technical reports on Burra Creek and recommends that NSW Planning Staff assessing the EA take detailed note of the paper's observations. The paper does not present an exhaustive list of weaknesses it is sufficient to raise doubts about the credibility of the report. Fundamental flaw in Chapter 11 of the EA dealing with water quality, by making invalid comparisons, due to lack of available data and a failure to access what data is in fact available.</p>	<p>Chapter 10 to 12</p>	<p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided.</p>
<p>The Fluvial Geomorphology report is not convincing in its conclusions that any changes to Burra Creek arising from the proposed flow would be within acceptable limits. Flaws in the report include:</p> <ul style="list-style-type: none"> - importance of the duration of high-flow and low-flow to enable retention of in-bed vegetation. - conclusions are based on assumed flows which are substantially less than the flows proposed by ACTEW, making the report invalid - especially given that the report suggest that impacts for this increased 	<p>10.2.3</p>	<p>Addendum 2 to the report Fluvial Geomorphologic Assessment (Nov, 2009) has been prepared to address the concerns raised in the submissions regarding the geomorphic impacts on Burra Creek and state with greater certainty the location, extent and degree of morphological adjustment along Burra Creek. Overall, the impacts on the morphology of Burra creek will be negligible to minimally altered by the transfer flows however key, localised sites, where a moderate to high degree of adjustment is expected are identified. Recommendations are provided to mitigate or negate the impacts associated</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>flows are likely to me non-significant</p> <p>It is evident that the ACT Government has rejected the proposal to run the pipeline all the way to Googong Reservoir on the basis of cost. ACTEW's concern for Burra Creek has weakened and cannot be relied upon for an objective assessment of the likely impact on the Creek. Financial considerations and ease of administration have resulted in the decision to not pipe all the way from Angle Crossing to Googong Res. These considerations should not override environmental consideration. It is important that NSW environment protection system holds up.</p>	<p>Chapter 20; S7.3.1</p>	<p>with these adjustments.</p> <p>Addendum 2 to the report Fluvial Geomorphic Assessment (Nov, 2009) has been prepared to address the concerns raised in the submissions regarding the geomorphic impacts on Burra Creek and state with greater certainty the location, extent and degree of morphological adjustment along Burra Creek. Overall, the impacts on the morphology of Burra creek will be negligible to minimally altered by the transfer flows however key, localised sites, where a moderate to high degree of adjustment is expected are identified. Further information has been included into Chapter 10 based on this addendum. The analysis of the various route options, including that of piping it all the way to Googong are discussed in more detail in Chapter 7.</p>
<p>Although the EA requirements from DECC required the proponent to consider options for locating the pipeline directly into Googong reservoir, it is apparent in the EA that the decision to cut the pipeline short was taken well before the surveys and analyses forming the appendices to the EA were conducted. It is reasonable to conclude that ACTEW considered the option required by DECC, but against criteria that did not consider it in terms of aboriginal, European, biological and geomorphological history as required by DECC. This is a substantive failing of the EA.</p> <p>Suggestions that any threatening changes to the creek's functioning could be adequately addressed through monitoring and remediation is unconvincing.</p>	<p>7.3.1</p>	<p>Pipeline route options, including piping to Googong, were assessed in 2007-2008 for their impact on social, environmental and economic aspects. Further information on these triple bottom line assessments has been included in Chapter 7 of the EIS. The preferred project will:</p> <ul style="list-style-type: none"> • increase the length of pipeline, resulting in increased cost, implementation time and potential for higher social and environmental impacts • Require difficult land ownership issues on Googong foreshores to be overcome; and • Achieve little in avoiding Burra Ck management issues.
<p>Suggestions that any threatening changes to the creek's functioning could be adequately addressed through monitoring and remediation is unconvincing.</p>	<p>Chapter 10 to 12</p>	<p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided. Monitoring and an adaptive approach to dealing with unexpected impacts remains an important part of the management approach</p>
<p>Acknowledges that to return to the wholly piped proposal would increase the cost of the project, in the context of the pipeline's working life of at least 50 years, the cost differential is not excessive. The project should only be approved with a variation to that ensure that the pipeline runs all the way to Googong Dam.</p>	<p>7.3.1</p>	<p>Pipeline route options, including piping to Googong, were assessed in 2007-2008 for their impact on social, environmental and economic aspects. The preferred project will:</p> <ul style="list-style-type: none"> • increase the length of pipeline, resulting in increased cost, implementation time and potential for higher social and environmental impacts • Require difficult land ownership issues on Googong foreshores to be overcome; and • Achieve little in avoiding Burra Ck management issues.

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>Individual C</p> <p>Opposed to the project based on environmental, visual amenity, indigenous heritage, faunal concerns and uncertainty over the future Murrumbidgee flows.</p> <p>Appendix C is not convincing in the assertion that there is/will be sufficient flow in the Murrumbidgee to withstand any diversion of water. Given the decrease in inflows into Googong of 80% why is it believed that the decrease in the Murrumbidgee will be only 10-30%. More detailed modelling is required as this is the crux of the issue.</p> <p>Concerned about the potential loss of water through evaporation in both Googong Res and during transfers from Tantangara via the Murrumbidgee.</p> <p>Energy cost of pumping water into Tantangara and then pumping it from Angle Crossing to Googong does not reflect conservation.</p> <p>Indigenous Heritage report and associated chapter fail to provide a long term plan for the duration and public display of archaeological materials recovered during excavation of the test pits. This matter needs to be resolved with traditional owners before further work is undertaken.</p> <p>There is no information on the probability of further materials being found during construction. Therefore it will be necessary to have an</p>	<p>NO CHANGE TO THE EIS</p> <p>9.4.1; 6.10 and Chapter 21</p> <p>1.3 and 5.3.5</p> <p>1.3 and 5.3.5</p> <p>14.1.1 and 14.5</p> <p>14.1.4 and 14.5</p>	<p>It is noted that the preferred project has not received unanimous support. The environmental impact of the preferred project has been assessed as low to moderate. Matters associated with the environmental, visual amenity, indigenous heritage, fauna concerns and uncertainty over the future Murrumbidgee flows are discussed throughout the document.</p> <p>Future pipeline extractions allow for the impact of climate change and the protection of river environmental flows and therefore acknowledges that there will be periods when there is not enough water flowing in the river to allow pumping to take place. Additional discussion on the availability of natural water flows in the Murrumbidgee has been included at 9.4.1 and in more detail in addendum to Appendix C. Discussion on the availability of water in the Murrumbidgee is included at 6.10 with the impact of climate change on availability of water discussed in Chapter 21</p> <p>Evaporative losses managed through timing of flow releases, with water stored in Tantangara (higher elevation, lower evaporative losses) until it is required by the ACT. Losses could be in the range of 16-42%. Evaporation from Googong will not be significantly changed by delivery of Tantangara releases.</p> <p>Water flows into Tantangara via natural inflows and does not require pumping. Once released water will flow down the Murrumbidgee R to Angle Crossing where pumping will be necessary to transfer water to Googong Reservoir for Storage. Energy requirements associated with pumping are discussed in Section 3 of Appendix N.</p> <p>There has been considerable consultation with registered Aboriginal stakeholders regarding the management and duration of recovered archaeological material during the testing and salvage component of the preferred project. Section 2 of the cultural heritage assessment report, provided as Appendix I of the Draft EIS/EA, presents an outline of the Aboriginal consultation process and describes relevant outcomes of that liaison, including possible duration options for recovered materials. There is currently no definitive position on duration that has been agreed on by all registered Aboriginal stakeholders. There is also no proposal from the Aboriginal stakeholders to publically exhibit salvaged materials. Various statutory authority requirements are relevant to the long term management of recovered artefacts and an appropriate curation strategy will be determined as a result of future consultation with the statutory authorities, the proponent and the registered Aboriginal stakeholders.</p> <p>The sample based subsurface archaeological investigation reported on in the cultural heritage assessment (provided as Appendix I of the Draft EIS/EA)</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>archaeologist monitor all ground disturbing work. The appendix refers to "one diversion - without any other reference to it.</p>		<p>clearly documents the discovery of archaeological deposits within the proposed development footprint and concludes that similar deposits can be expected to occur across the potential archaeological deposits identified within the preferred project area. Following a recommendation in the cultural heritage assessment report, a commitment has been made to conduct a further program of archaeological testing with the aim of determining the most appropriate strategy for the mitigation of impacts to archaeological deposits. The results of the further program will be incorporated into the Indigenous Heritage Management Sub Plan of the Construction Environmental Management Plan. The strategies specified in the sub plan (which will include an unanticipated discovery protocol) will remove any need for the archaeological monitoring of all ground disturbances. The 'one diversion' mentioned in section 1.4 of the cultural heritage assessment report (provided as Appendix I of the Draft EIS/EA) is a reference to an alternative pipeline route situated just west of the ACT border, which was subsequently adopted as part of the proposed route.</p>
<p>The Landscape and Visual Assessment has the following deficits: - a before and after visual modelling to current standards of the 40m wide clearance should have been undertaken - names and credentials of Landscape Architects mentioned in 3.2.2 should be specified.</p>	<p>18.4</p>	<p>Whilst a 40 m wide construction corridor was considered in specialist assessments undertaken for the EIS, clearing and grading will be minimised as much practicable to the extent necessary for construction of the pipeline. Rehabilitation will be undertaken to restore areas impacted by construction, with the exception of the 15m easement to allow continued access to the pipeline for maintenance etc. The main visual impact of the pipeline will be a reduction in the quantity of trees, shrubs and grassland as a result of clearing the linear 15 m wide corridor for the pipeline. Consideration of the impacts of a 15 m wide easement was undertaken as part of the Landscaping and Visual Impact Assessment and this is discussed in section 18.4 of EIS.</p>
<p>Appendix M, Climate Change is deficit as follows: - Extreme weather conditions need to be taken into consideration - drought needs to be considered with respect to flows of the Murrumbidgee diminishing - wildfires in the Googong Catchment is high with difficult terrain</p>	<p>9.3.2; 21.1.2; 21.3</p>	<p>An assessment of the water transfer scenarios for the preferred project was undertaken for the EIS (Appendix C with a summary in chapters 9 and 10). The assessment modelled two climate scenarios to ensure that the extremes had been taken into consideration. These two scenarios are: • The last ten years climate continually repeating (daily timestep analysis); and • Stochastic data based around the CSIRO worst case projections of ACT 2030 climate (monthly timestep analysis). Further information has been factored into the EIS on Climate Change impacts and mitigations in Chapter 21. Chapter 21 also includes related discussion on potential bushfire impacts and mitigations.</p>
<p>Chapter 13 - Terrestrial Ecology - no mention of eastern water dragons (physignathus leswuerii), blue tongue lizards or black snakes. Suggests the study was done in autumn</p>	<p>13.1.2</p>	<p>ACTEW recognises the importance of delivering the preferred project within established environmental objectives including the protection of threatened flora and fauna. However it agreed through negotiation with DECCW that with</p>

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and winter		the exception of targeted surveys for Pink Tailed Worm Lizard no additional assessment of threatened flora and fauna will be required.
Before the transfer scheme is put into effect water conservation measures should be imposed on Canberra and a water recycling plant put into operation, so that residents can experience the drought and change their life-styles as people of rural NSW have had to. Water should not be drawn from neighbouring national parks	Chapter 1	ACTEW recognises the importance of water conservation and Canberra and Queanbeyan have been subject to water restrictions for six years. Level three water restrictions have applied for the last three years and Permanent Water Conservation Measures were introduced in 2005.
Individual ID		
Draft EIS does not adequately address the Final Scoping Document issued by ACTPLA and the Director-General requirements issued by NSW Department of Planning.	2.2.2 Appendix B, Attachment 1 & 2	The draft EIS/EA was subject to adequacy review in accordance with the NSW Environmental Planning and Assessment Act 1979 to ensure that it addressed the Director's General Requirements. ACTPLA reviewed the draft EIS/EA to ensure it met the Scoping Document requirements and comments received in relation to this have been addressed in the EIS. Appendix B, attachments 1 and 2 cross-references each requirement with the relevant section of the EIS
<p>Recommends an appropriate livestock specialist be engaged to consider the impacts during and post construction on the health of sheep and impacts on breeding and lambing of the following:</p> <ul style="list-style-type: none"> - traffic - noise and vibration - air quality and dust - water quality - potential toxic and hazardous materials and spillages - soil erosion and land contamination <p>Recommends that further consultation with landholders to negotiate specific measures to prevent any negative impacts from the matters identified above, including agreement not to construct during lambing season.</p>		The preferred project has also considered the risks of bushfires in the locality. Please refer to the section which addresses "Bushfires".
Draft EIS is silent on the impact on World War II Bomb Shelter and School at Williamsdale from a heritage aspect.	Chapter 21	Chapter 21 of the PPR/EIS has been updated to address bushfires.
Draft EIS is silent on issues regarding potential fire hazards during construction and recommend a new impact statement be prepared which details measures to be put in place to prevent potential fire hazards.	21.3	In response to this comment further discussion has been provided in section 21.3 regarding the risk of bushfire from construction and operation of the preferred project. Section 21.3.4 describes the mitigation measures which will be adopted to manage the potential risks of bushfires associated with the preferred project. Management plans will be prepared in consultation with relevant experts and endorsed by relevant agencies.
Inadequate flora and fauna sampling was done. Notes listed endangered species on or adjacent to their property. Recommends the engagement of an appropriate consultant to prepare new impact statement and further consultation with individual stakeholders.	13.1.1, 13.1.2	ACTEW recognises the importance of delivering the preferred project within established environmental objectives including the protection of threatened flora and fauna. However it agreed through negotiation with DECCW that with the exception of targeted surveys for Pink Tailed Worm Lizard no additional

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The economic impact of the project, particularly negative impact on land values and impact on future loss of income as a result of the easement are not specified in the draft EIS. Suggest the appointment of appropriate consultant to address this.	Chapter 23	assessment of threatened flora and fauna will be required. The opportunity cost of the foregone land is small relative to the benefits of the preferred project.
The social assessment does not consider impact of construction on landholders and the impact of the creation of an easement on affected landholders. Recommends preparation of a new impact statement to assess these impacts and continued consultation with individual stakeholders to prevent any negative social impacts.	23.3, 17.3.3, Appendix O	Impacts associated with the creation of a permanent easement have been discussed in the land use chapter (chapter 17 of the EIS as well as section 17.3.3 of the social impact assessment). Impacts to land holders have also been considered in relation to amenity impacts of dust, noise, vibration, access and privacy and lifestyle impacts during the construction phase. ACTEW's offer of compensation to affected land-holders has been determined by valuation methodology in accordance with the Land Acquisition (Just Terms Compensation) Act 1991. This process is currently ongoing, and not appropriate for discussions within an environmental approval document.
Individual E		
Object to the proposal based on proximity of houses to the air vents in the pipeline which will cause noise disturbance to residents	20.4.2	In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S 20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any significant levels of noise associated with the operation of the scour valves.
Early upstream release would also allow for restoration of the creek, and provide longer distance for turbidity to be reduced and the water to acquire proper levels of oxygen.	NO CHANGE TO THE EIS	ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Paterang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.
Suggest the route continue down Williamsdale Road releasing the water to the creek near the low level crossing. This would avoid the impact on households on MacDiarmid Rd.	Chapter 6 ; 23.3.2	ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Paterang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.
Individual F		
Points out the EIS does not deal with the indirect environmental issues eg energy used for manufacturing and laying the pipeline and ongoing	Chapter 22; Appendix N	The greenhouse gas assessment includes emissions from all life cycle stages of the proposal. The life cycle stages for the proposal include the extraction

Comment	Relevant Section modified in the EIS	ACTEW Response
energy used for pumping.		and manufacturing of construction materials (e.g. pipes), energy used during construction (e.g. fuel consumed during laying of the pipes) and the energy used to pump the water during operation i.e electricity consumption. The methodology and a detailed list of inclusions in the greenhouse gas assessment are contained in Appendix N of the EIS. This estimate was based on the best available data at the time of the assessment. Use of biofuel is being considered to minimise emissions-not considered an 'offset'.
Agrees with community response to EIS.	No change to the EIS	Noted
Individual G Object to the current pipeline route as it will cause on-going disruption to my rural lifestyle particularly from noise. Recommend that the pipeline continue down Williamsdale Road to release the water into the creek near the existing low level crossing.	Chapter 6 ; 23.3.2	ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Paterang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.
Individual H Oppose the current route due to social impacts and loss of amenity for the community. Alternative routes have not been described in sufficient detail to enable an understanding of the reasons for preferring certain options and courses of action and rejecting them, other than on the basis of dollars.	7.3	In response to submissions received during public exhibition, additional information on the assessment of the alternate pipeline routes has been included in Chapter 7 including their advantages and disadvantages in terms of triple bottom line aspects.
EA/EIS analysis of noise and vibration does not meet the Scoping document and NSW government requirements. The EA/EIS lacks detail on exact location of air and scour vents which is of considerable concern to the community as these vents will create considerable noise disturbance and permanent loss of amenity. No location for blasting areas during construction has been provided and the community is concerned about impact of these.	Fig 3.9; S 20.4.1	In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S 20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any significant levels of noise associated with the operation of the scour valves. Location of air and scour valves in shown at figure 3.9 Location of air and scour valves in shown at figure 3.9 with the blasting locations described in 20.4.1.
Based on the lack of route analysis and detail on operational noise from the vents, this EA/EIS is incomplete. Ask that the proponent be required to complete an adequate Assessment. Also areas of blasting not highlighted	Fig 3.9; S 20.4.1	In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S 20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any significant levels of noise associated with the operation of the scour valves. Location of air and scour valves in shown at figure 3.9 with the blasting

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<p>Please note that residents have been asked to agree to compensation without information on exact location of vents and without proper understanding of the associated noise impacts.</p>	<p>4.2.4 and 20.4</p>	<p>locations described in 20.4.1.</p> <p>Assessments have been made of the potential impact of noise from air valves and this is discussed in 20.4. As an early part of easement negotiations, each affected landholder was provided with a plan that shows the air valve locations (if one is located on their property).</p> <p>Liaison with landholders with regard to land acquisition is being undertaken on a direct basis with each landholder in accordance with the NSW Land Acquisition (Just Terms Compensation) Act 1991..</p> <p>ACTEW has not made any compensation offer directly to landholders that do not have the route pass through their property, however ACTEW has offered funding to Palerang council to undertake Williamsdale road safety improvements and provide “greenways” within road reserves. The noise impacts of the air valves are negligible against ambient background noise in normal operating conditions and comply with legislated requirements.</p>
<p>Individual I</p> <p>Concerns about the particular pipeline route and its adverse affects on the community and the environment. Impacts of noise pollution, clearing of areas for excavation, impact on wildlife corridor being established and change to water quality and flow in Burra Ck.</p>	<p>S 7.3</p>	<p>In response to submissions received during public exhibition, additional information on the assessment of the alternate pipeline routes has been included in Chapter 7 including their advantages and disadvantages in terms of triple bottom line aspects. Impacts of the selected route on noise pollution, clearing of areas for excavation, impact on wildlife corridor being established and change to water quality and flow in Burra Ck are discussed throughout the document.</p>
<p>Suggest the pipeline route be amended to discharge near the low-level crossing on Williamsdale Road. There are environmental benefits to this option as it may stabilise the aquatic ecosystem and limit ongoing disruption.</p>	<p>Chapter 6 ; 23.3.2</p>	<p>ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palerang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.</p>
<p>Individual J</p> <p>Propose a minor change to the pipeline route to continue down Williamsdale Road and release at the upstream junction of Holden and Burra Creek near the low level crossing on Williamsdale Road.</p>	<p>Chapter 6 ; 23.3.2</p>	<p>ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palerang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>This alternative route would avoid the need to removal well established poplar trees and minimise the noise pollution of local residents. By releasing upstream the natural water flow and natural ponding of the creek.</p>	<p>Chapter 6 ; 23.3.2</p>	<p>process. ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Paterang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.</p>
<p>Individual K Support the proposal and ask that ACTEW consider that the entrance point for water to Burra Creek be moved to the low level crossing at Williamsdale Road. This would be a cost saving to ACTEW, but more importantly to us is the potential benefits to an increased area of Burra Creek through rejuvenation of local ecology. The route would reduce impacts on landholders and provide potential access to water for local bushfire brigade.</p>	<p>Chapter 6 ; 23.3.2</p>	<p>ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Paterang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.</p>
<p>Industry and Investment NSW Concerned about the potential transfer of alien fish species (notably carp and oriental weatherloach from the Murrumbidgee River to Googong Res. Particularly noting the population of Macquarie Perch located upstream in the Queanbeyan Rv. Notes the fish screens are the only line of defence. Recommends that a Condition of Consent be included which specifies that the pumping station must be designed so that it will not be able to operate whenever the fish screens are not in place.</p>	<p>12.2.2, 12.2.5, 12.3.1</p>	<p>In response to issues regarding alien fish species additional information has been provided in the EIS. This can be found in sections 12.2.2., 12.2.5 and 12.3.1. Alien fish species, Carp Cyprinus and Oriental Weatherloach are common in the Murrumbidgee River. These species are present in the Googong catchment but have not yet been recorded in the Googong Reservoir. The potential for transferring alien species such as carp from the Murrumbidgee River to Burra Creek and Googong Reservoir is a significant risk which the proponent proposes to eliminate through the use of an effective intake screen including fish egg filtration units, to prevent the transfer of fish, larvae and eggs. The effectiveness of this screen will also be monitored. The preferred project is not likely to contribute to the operation of this key threatening process.</p>
<p>It is noted that while the reduction in flows leaving the ACT are relatively minor, they are cumulative impacts, both from other existing uses and the Enlarged Cotter Dam. It is noted that further reductions in flows will have additional impact upon native fish communities.</p>	<p>12.3.3</p>	<p>Comment noted. Overall, fish passage in Burra Creek is likely to be positively affected by an increase in regular flows as a result of the preferred project. Monitoring of the behavioural changes in fish populations within the catchment, in response to the increase in habitat connectivity between Burra Creek and the Googong Reservoir, will help determine if annual breeding migrations are initiated which will be managed through adaptive management processes. The proposed monitoring will inform future reviews of environmental flow guidelines and help define operating rules.</p>
<p>Recommend that a Condition of Consent be included to adopt a variable Googong storage threshold, to assist in mimicking the natural flow</p>	<p>Chapter 27</p>	<p>ACTEW has the flexibility to vary its proposed initial pumping rule based on the results of its monitoring program which is described in Chapter 27.</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>regime of Burra Creek, rather than the flat 80% rate proposed.</p> <p>Concerned 48 hour ramp down may be too short. Recommends that a Condition of Consent be included to review the proposed 48 hour ramp down period and determine how well it mimics the natural rate of recession of flow events in Burra Ck and adapt the ramp down period as appropriate.</p> <p>Does not object to consent being granted to this project and supports inclusion of all commitments.</p>	Chapter 27	ACTEW has the flexibility to vary its proposed initial 48 hour ramp down period based on the results of its monitoring program which is described in Chapter 27.
<p>NSW Office of Water (NOW)</p> <p>There are risks associated with the geomorphic alternation of Burr Creek which require further consultation between the applicant and the NSW Government to ensure there risks are minimised and/or mitigated.</p>	No change to the EIS	Noted. All commitments will be adopted
<p>Express concern that this project will through the planned diversion of 'run-of-river flows', result in impacts to the environment an downstream users, which, while it isn't a breach of the Act's Cap on diversions it does exploit the credits under the Cap that the ACT is currently accruing. This is not in the spirit of the Cap agreement, and sets a poor example at a point when the environment is under extreme stress.</p> <p>The flow modelling in Burra Creek has highlighted uncertainty in relation to impacts from the timing, duration, volume and velocity of flows. This is of particular concern with the potential for lateral stability within reaches 2 and 3 of the Creek. It is NOW's view that the outlet structure should be within the backwaters of Googong Dam. At a minimum, it is recommended that a Flow Management Plan be developed to establish rules and governance around timing, quantity, velocity and duration of flows through Burra Creek.</p>	10.2.3	Addendum 2 to the report Fluvial Geomorphic Assessment (Nov, 2009) has been prepared to address the concerns raised in the submissions regarding the geomorphic impacts on Burra Creek and state with greater certainty the location, extent and degree of morphological adjustment along Burra Creek. Overall, the impacts on the morphology of Burra creek will be negligible to minimally altered by the transfer flows however key, localised sites, where a moderate to high degree of adjustment is expected are identified. Recommendations are provided to mitigate or negate the impacts associated with these adjustments. Discussions with the NSW Government with regard to monitoring and risk mitigations continue.
<p>Notes there are 17 watercourse crossing of which 13 are in NSW.</p>	5.2.1	ACTEW's water extraction from the rivers in the Murray-Darling Basin is consistently within the constraints set under the CAP system and aligns with major strategic water policies such as the Murray Darling Basin planning, the National Water Plan and the National Water Initiative.
	10.2.3; 27.4.1	Addendum 2 to the report Fluvial Geomorphic Assessment (Nov, 2009) has been prepared to address the concerns raised in the submissions regarding the geomorphic impacts on Burra Creek and state with greater certainty the location, extent and degree of morphological adjustment along Burra Creek. Overall, the impacts on the morphology of Burra creek will be negligible to minimally altered by the transfer flows however key, localised sites, where a moderate to high degree of adjustment is expected are identified. In relation to the impact of transfer flows on pool morphology along Burra Creek, the results demonstrates that of a total 45 major pools between Burra Road and London Bridge, 7 pools have a risk of being minimally to moderately impacted upon by the transfer discharges. Strategies to minimise or negate the risk for these pools will be incorporated into the Ecological Monitoring Plan and associated adaptive operating regime.
	6.11.9	The proponent will consult with the NSW Department of Water and Energy

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<p>Classified by NOW as Major Watercourses (crossings 5 & 6); Moderate Crossings (Crossing 4) and Minor Watercourses (the remaining 10). Detailed engineering designs should be submitted for each category as part of a Surface water Management Plan, which must include a minimum distance of 2m between the top of the pipe to the bed of the channel for the major watercourses, a minimum of 1m between the top of the pipe to be bed of the channel for the moderate and minor crossing watercourses. The Plan should also detail the rehabilitation methodology for all waterway crossings.</p> <p>Recommended Condition of Consent for Surface and Groundwater Management. Require the following management plans or engineering designs to be prepared and endorsed by NOW prior to commencement of construction:</p> <ul style="list-style-type: none"> - A Surface Water Management Plan including: <ul style="list-style-type: none"> a. detailed engineering designs for the outlet structure b. detailed engineering designs for each category of watercourse crossing c. Rehabilitation methodology of each category of watercourse crossing - A Flow Management Plan identifying the timing, duration, volume and velocity of water transfer flows through Burra Creek - A Monitoring Program including the Morphological Monitoring Program of Burra Creek. The Morphological Monitoring Program must be commenced prior to the introduction of flows through Burra Creek to establish a baseline for long-term monitoring of any impacts. - A Riparian Vegetation Plan - A Construction Environment Management Plan, including the soils management sub plan that includes standard waterway erosion and sediment control practices. - A Rehabilitation Plan for the pipeline route, particularly in reference to works within 40 metres of a watercourse. - Prior to any dewatering activities associated with groundwater interception along the pipeline route, the Applicant must consult with NOW. 	<p>Assessments are attached to EIS/PPR, also 6.11, and 28.1</p>	<p>with regard to watercourse crossing methodologies and site-specific mitigation measures for watercourses which will then be incorporated into the construction environmental management plan.</p> <p>These have all been assessed in terms of estimated flood event flows and their corresponding flow velocities. These velocities have been used as a basis for determining the geometry of the pipeline crossings of these water courses and then selecting the type of scour protection over the pipeline and the trenching.</p>
<p>Individual L</p> <p>Concerned about the current pipeline route due to the proximity to houses, loss of rural amenity due to ongoing noise created by air vents and possible loss of trees.</p>	<p>20.4.2</p>	<p>In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S 20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
		<p>significant levels of noise associated with the operation of the scour valves. Location of air and scour valves in shown at figure 3.9</p>
<p>Would suggest better option would be to continue the pipeline down Williamsdale Road and have the water released into Burra Creek in the vicinity of the existing low level crossing and proposed bridge.</p>	<p>Chapter 6 ; 23.3.2</p>	<p>ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palarang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.</p>
<p>Benefits of this option apart from obvious commercial savings are: avoidance of noise close to houses; less disruption to landholders rural amenity; greater benefit to the environment with the opportunity for restorative work to be done around the junction of Holden and Burra Creeks and upstream section of Burra Creek.</p>	<p>Chapter 6 ; 23.3.2</p>	<p>ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palarang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.</p>
<p>The effect of construction of a mini-hydro plant in relatively close proximity is an issue that concerns me.</p>	<p>18.2.1; 20.4.2</p>	<p>The visual impact of the mini-hydro is discussed in Chapter 18, which details the limited views from a range of locations. The noise level from the mini-hydro is discussed at 20.4.2 and will be designed not to exceed the allowable NSW Industrial Noise Policy (INP) Project Specific operational noise criteria which is 35 dB(A) during all time periods. As stated in the INP, this is to be assessed at the most-affected point on or within the residential property boundary— or, if that is more than 30 m from the residence, at the most-affected point within 30 m of the residence. If this level is found to be exceeded during the detailed design stage, appropriate acoustic treatments will be incorporated into the design.</p>
<p>Burra District Pony Club</p>		
<p>Supports the project provided conditions are applied to the approval of the project to ensure the safety of horses and riders in the area.</p>	<p>25.3, 25.3.5, 25.5, 28.1</p>	<p>Consultation with local riding groups will be undertaken with the aim to minimise any impact on equestrian activities and ensure the safety of horses and riders. Road signage will be in place warning of horse riders in the area. Approved traffic management plans will also be developed in consultation with relevant government agencies. These will form part of the construction environmental management plan and will be implemented throughout the construction period to regulate traffic movements and speeds.</p>
<p>No construction activity occurs along Williamsdale and Burra Roads on the second Sunday of each month.</p>	<p>6.11, 28.1</p>	<p>Construction time requirement stated, Sunday work not proposed. Management plans will be prepared in consultation with relevant experts and endorsed by relevant agencies. Impacted groups/individuals will be consulted on appropriate mitigation</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
		measures during and post construction to minimise potential adverse impacts.
All existing road signage warning drivers that horse riders may be ahead will be avoided by the construction equipment and if accidentally destroyed will be replaced immediately.	28.1	Agreed
Prior to entering the Burra area, all earth moving equipment will be inspected for the presence of dirt and clay and if present be washed down and disinfected to avoid the introduction of plant species that may be toxic to horses.	NO CHANGE TO THE EIS	Washdown bays will be used between properties while the topsoil is cleared and re-established. After topsoil clearing has occurred there will be no vegetation remaining to carry between the properties. A temporary roadway will be set in place for traffic to move along while construction is taking place.
All earthworks along the Williamsdale and Burra Roads will be surrounded by a temporary fence.	6.11	Agreed
When controlling traffic along the Williamsdale and Burra Roads during construction activity, minimal stoppage time will be applied to vehicles towing horse floats or trucks carrying horses.	25.3, 25.5	During the laying of the pipe in Williamsdale Road the road will be closed for traffic movement other than for residents in the area where the excavation is taking place. Prior to work happening we will correspond with the landowners affected and work together to try and minimise disruption. Work will be conducted under an approved traffic management plan
The speed of construction traffic will be limited to 40 kph after 4pm each day.	25.5	Most of the construction traffic will be along the pipeline corridor which will have a 40kph speed limit . The construction traffic will be asked to drive carefully on secondary roads. This will be managed under an approved traffic management plan
No construction personnel or machinery will be permitted to enter a paddock occupied by a horse.	No change to the EIS	If the paddock is not in the construction corridor we will not be entering
All steel posts erected along the Williamsdale and Burra Roads as part of the construction project will be capped.	No change to the EIS	Agreed
Individual M		
I do not support the proposal at this time.	No change to the EIS	It is noted that the preferred project has not received unanimous support.
The analysis undertaken to determine how much water can be extracted from the Murrumbidgee River does not appear to address future upstream land use changes and likely increases in water extraction rates.	9.4.1	Future pipeline extractions allow for the impact of climate change and the protection of river environmental flows and therefore acknowledges that there will be periods when there is not enough water flowing in the river to allow pumping to take place. Projected utilisation of the pipeline is less than 100%, as is evident from the figures in Table 6.3 of the Draft EIS/EA and the data in Section 4.1 of Appendix C. This is due to the impact of climate change and protection of environmental flows. Nevertheless, despite these expected limitations, the amount of water available to be pumped is projected to be sufficient to make the preferred project viable. The data also shows that the pipeline will have a larger utilisation if approval for water releases from Tantangara is forthcoming. It is not possible to anticipate the extent to which possible future upstream water extractions will have a detrimental effect on

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>No analysis seems to have been undertaken to determine if the following actions would represent an alternative approach to securing more water for Googong Dam</p> <ul style="list-style-type: none"> - Change the planning rules to allow no more rural residential development in the Googong catchment - change the water extraction rules so that no surface water can be extracted from ponds, creeks or streams within the Googong Catchment. - provide financial incentives to land owners in the Googong Catchment which allow them to back-fill their farm dams and install alternative water storage facilities. 	<p>No change in the EIS</p>	<p>pipeline water flow. However, should there be a serious effect ACTEW will consider additional compensating releases from Tantangara Res.</p> <p>These options are all outside the scope of ACTEW and the ACT Government as they relate to NSW jurisdictions.</p>
<p>Change the planning rules to allow no more rural residential development in the Googong catchment</p>	<p>No change in the EIS</p>	<p>Nevertheless, despite these expected limitations, the amount of water available to be pumped is projected to be sufficient to make the preferred project viable. The data also shows that the pipeline will have a larger utilisation if approval for water releases from Tantangara is forthcoming.</p>
<p>- change the water extraction rules so that no surface water can be extracted from ponds, creeks or streams within the Googong Catchment.</p>	<p>No change in the EIS</p>	<p>Management of the Googong catchment is the responsibility of NSW government. This will be the subject of future inter-jurisdictional negotiations.</p>
<p>- provide financial incentives to land owners in the Googong Catchment which allow them to back-fill their farm dams and install alternative water storage facilities.</p>	<p>No change in the EIS</p>	<p>It is not possible to anticipate the extent to which possible future upstream water extractions will have a detrimental effect on pipeline water flow. However, should there be a serious effect ACTEW will consider additional compensating releases from Tantangara Reservoir.</p>
<p>Individual N</p> <p>Found the document extremely difficult to read and certainly not in 'plain English'. Have been to all the community information sessions, but still have many unanswered questions.</p>	<p>Chapter 4</p>	<p>ACTEW produced a range of supporting documents to the EIS to assist the community the complex issues associated with the preferred project. These fact sheets and a summary document of the draft EIA/EA were distributed widely in the community, were available online and at each of the community information sessions. ACTEW will continue to have a dedicated Community Engagement Stakeholder Management resource available to answer questions from the community both collectively and those of individuals when raised. Details of the on-going role of the community resource are detailed in Chapter 4.</p>
<p>I have not seen a to-scale drawing or photo of the exact location of the pipeline on our property and therefore do not know where each valve will be placed. The valves will have an impact on our rural lifestyle - our house is less than 50m from the front fence line where I understand the valve will be located. The noise of the valve is a concern, what will be</p>	<p>20.4.2</p>	<p>In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S 20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any</p>

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<p>the environmental impact of this noise on the residents and animals on our property?</p>		<p>significant levels of noise associated with the operation of the scour valves. Location of air and scour valves in shown at figure 3.9</p>
<p>The pipeline has a significant impact on the ability to continue with the planned subdivision of our property for our family.</p>	4.2.4	<p>ACTEW's offer of compensation to affected land-holders has been determined by valuation methodology in accordance with the Land Acquisition (Just Terms Compensation) Act 1991.</p>
<p>Concerned about the establishment and maintenance of grasses once the pipeline has been completed, I have past experience of how long this may take and I see nothing in the statement that ACTEW will maintain the affected area over a period of many seasons.</p>	27.3.4	<p>ACTEW acknowledge this comment, a rehabilitation plan will be developed to describe the rehabilitation management, objectives and activities necessary to assess and rehabilitate areas impacted by construction works. A monitoring program will be implemented for one year after rehabilitation has begun by the construction team.</p>
<p>We have not received any guarantees that the trees at the front of our property will not be removed. If even one of these trees is removed it will impact greatly on the area around the house.</p>	13.6.1	<p>Impacts on trees and other vegetation on private property will be discussed with landholders on a case by case basis. Any impacts on native vegetation will be reflected in the proposed offsets strategy and where it is necessary to remove trees or vegetation compensations will be negotiated with landholders</p>
<p>Information in the EIS was collected from ACTEW employees who would show a direct on indirect bias towards the project proceeding. I would like to see an independent set of eyes investigating the project thus far.</p>	Chapter 31	<p>While ACTEW funded all the necessary assessments, experts were selected based on their areas of specialist expertise. An additional table has been inserted into Chapter 31 which provides the qualifications of the various specialists that undertook the assessments for the EIS. The EIS document was produced based on these specialist assessments by a team with recognised qualifications and experience in environmental assessment.</p>
<p>I believe there are many negative impacts on the communities in general and our property in particular that need to be considered.</p>	NO CHANGE TO THE EIS	Noted
<p>Queanbeyan Landcare Inc Offers strong support for the submissions by the Upper Murrumbidgee Catchment Coordinating Committee, the Molonglo Catchment Group and ACT Waterwatch.</p>	NO CHANGE TO THE EIS	Responses to the issues raised in these submissions have been included in the appropriate section of this table.
<p>Sees this project as the most risky and ill-conceived water infrastructure proposal by the ACT Government. Its commencement should be cancelled, or deferred until the risks are better assessed and understood and until this proposal is adequately compared with other options, including the option of not proceeding.</p>	7.2. 5.3, 29.1	<p>The Do-nothing option, discussed in section 7.2, will necessitate the prolonged use of the harshest levels of water restrictions and will result in social and economic costs associated with severely limiting the use of potable water. The preferred project is in keeping with ACTEW priorities and will be delivered alongside a range of management and mitigation strategies and monitoring to minimise adverse impacts on the environment, including local properties, residents and their stock.</p>
<p>The key operational risk to the viability of this pipeline relates to the frequency of high Murrumbidgee River water levels which are a prerequisite for pumping. It is likely that the days of the year that water can be pumped will continue to decline. The existing capacity to pump Murrumbidgee water from Cotter Pumping station to Googong via</p>	21.1.2	<p>The EIS has taken into consideration the possible worst case scenario for the lowest rainfall / highest evaporation, and how this will impact on the viability of the preferred project. Further information has been factored into the EIS on Climate Change impacts and mitigations in Chapter 21. Based on this analysis, ACTEW has decided not to proceed with the suggested CSIRO and</p>

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<p>existing pipelines with nil evaporation losses also challenges the viability of this project. Recommend that the CSIRO and Bureau of Meteorology be jointly tasked to model the likely weather and runoff patterns for the upper Murrumbidgee and a further assessment of the project's viability made before any decision to proceed. May decide to defer or not proceed</p> <p>Recommend that greater efforts be made to manage demand by saving water, particularly in commercial areas, but also households. If such efforts result in more quickly achieving the ACT goal of 25% per capita reduction, this should delay any commencement of this project and possibly defer it indefinitely.</p>	<p>Chapter 1</p>	<p>Bureau of Meteorology assessment.</p> <p>ACTEW recognises the importance of water conservation and Canberra and Queanbeyan have been subject to water restrictions for six years. Level three water restrictions have applied for the last three years and Permanent Water Conservation Measures were introduced in 2005.</p>
<p>Extraction of additional water from the Murrumbidgee will impact on already stressed environmental flows and in addition downstream sediment movement largely in the form of sand will stall further, accelerating the loss of aquatic habitat.</p>	<p>12.3.5, 12.3.10</p>	<p>The water quality within the Murrumbidgee River may be temporarily impacted during the construction and operational phases of the development, as a result of increased bank erosion and sedimentation, increased turbidity and decreased light penetration. However as noted in chapter 11, the preferred project is unlikely to result in significant or long term impacts on the water quality of the Murrumbidgee River. Mobilised sediment and silt entrained within the flows will be screened at the intake and flushed into an educator pipeline which will discharge into the Murrumbidgee River. The proposed regular release of captured sediments from within the intake structure back into the river flows will result in frequent plumes of sediment downstream of Angle Crossing. Potential impacts may comprise smothering of aquatic species and changes to the physical structure of the river bed including the loss of ecologically valuable interstitial spaces. The exact extent of the potential impacts of the sediment release cannot be determined, as entrained sediment levels within the Murrumbidgee River fluctuate temporally. However, continued monitoring once the system is activated will assist in identifying the residual impacts and minor adjustments to the timers or release volumes could be implemented to further reduce potential impacts.</p>
<p>The retreat of the creek to gutter-like condition following the sustained scouring during pumping will lead inevitably to major damage of the riparian environment. The failure of the EIS to formally address the various direct costs and benefits of the proposal to use Burra Creek versus the alternative of extending the pipeline to the dam is a fatal flaw which should be remedied before the EIS is reissued and subject to a further period of public consultation and consideration.</p>	<p>10.3</p>	<p>The potential for scouring in the creek has been investigated further in section 10.3. Prolonged periods of continuous flow transfer or large magnitude natural flood events, will inundate fringing terrestrial/riparian vegetation and expose the underlying sediments to erosion by flows. Creek flows above 50 ML/day (which are projected to occur 30% of the time on average) will result in erosion of the upper fine grained layer if the vegetation cover in the area inundated by transfer flows is lost.</p>
<p>Buried ACTEW pipelines and their 15 m cleared zones tend to become defacto roads/tracks with consequential increased risks of sedimentation, erosion and weed infestation. If this project proceeds, urge ACTEW to apply the following management regime, particularly in</p>	<p>17.5.1, 27.3.2, 27.3.4</p>	<p>If a landowner permits entry from their property to attain the shortest point to service valves ACTEW will do so. No permanent access is to be constructed after rehabilitation is complete. All erosion control procedures will be implemented in accordance with an approved Soils and Water Quality</p>

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<p>areas of existing bushland, with the owner's permission:</p> <ul style="list-style-type: none"> - no access roads along the pipeline generally, but only sufficient to get to particular pipeline assets requiring servicing, such as valves. - locally appropriate grasses and smaller native shrubs to regenerate or be seeded over the pipeline itself and for 5m each side. - locally appropriate taller shrubs and trees to regenerate or be seeded outside this 5m zone - erosion control measures on the pipeline itself and any dirt access roads or tracks be made a mandatory part of the restoration process above the buried pipeline. - where fencing is required, stipulate fencing with a 600mm gap at the bottom wherever possible to allow the ready movement of native animals. 		<p>Management Plan. Revegetation issues will be addressed in the Landscape Rehabilitation Management Plan.</p>
<p>The EIS makes no mention of risks of erosion and loss of vegetation from trail bike and other illegal vehicular use of the pipeline easement if it becomes a de facto road or trail. Given the proximity to the new Googong growth centre, these risks are both real and substantial, the EIS should deal with these risks and their ongoing amelioration.</p>	17.5.1, 27.3.4	<p>The easement will be fenced during construction and during rehabilitation period. The site will be under security surveillance during after work hours including weekends. During the rehabilitation period following construction the area will remain fenced. The pipeline is through farmland so the risk of people coming onto properties will be minimal without the land owner being aware. During construction the area will be under security guard. After construction area the area will be fenced and police will be informed of any illegal activity.</p>
<p>Suggests an additional offset project involving refurbishing appropriate bushland/grassland vegetation (snow gum or box woodland) between the Googong Dam west foreshore and the Burra road as an offset for the loss of other vegetation. If the width and location of such areas are chosen carefully they could act as key infill for east/west biodiversity corridors between the eastern escarpment of the Queanbeyan River and the bushland to the west of the Murrumbidgee. This would be consistent with the Kosciuszko To The Coast landscape connections project.</p>	13.4	<p>Offset area identification is being undertaken based on a multi criteria approach, including vegetation and habitat types, value and conservation benefit, contribution to broader environmental outcomes (corridors and connectivity) as well as land tenure, other uses and long term management. An offsets strategy is being developed in consultation with regulatory government agencies. The EIS sets out the approach and concepts to be included in offset strategy.</p>
<p>Burra Landcare</p> <p>Many significant issues associated with the project, including the modification and destruction of significant vegetation communities during the construction phase, ongoing noise impacts of the many air pressure valves, impacts on culturally significant sites, together with community division and lasting change to the ambience of a small and peaceful rural residential area.</p>	NO CHANGE TO THE EIS	<p>It is noted that the preferred project has not received unanimous support. The environmental impact of the preferred project has been assessed as low to moderate. Matters associated with the environmental, visual amenity, noise, indigenous heritage, faunal concerns and uncertainty over the future Murrumbidgee flows are discussed throughout the document.</p>
<p>Believes that the EA methodology is flawed and lacks sound scientific basis and that there is potential for substantial and irreparable damage to Burra Creek, its water quality and ecology.</p>	Chapters 2, 10, 11 and 12	<p>Draft EA/EIS assessed for adequacy by the NSW DoP and ACTPLA prior to public exhibition. All comments received during public exhibition have been reviewed and amendments made where necessary. Responses to each submission are</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>The EA fails to demonstrate that the proposed flow in Burra Ck will not cause substantial damage, and therefore fails to meet the Director-General's requirements. Approval of the project should be refused until the substantial failings are addressed to demonstrate that all requirements have been met; or that the proposal be completely modified to allow for the pipeline to run all the way to Googong Dam.</p>	<p>Chapters 10 to 12</p>	<p>shown in the Consultation and Submissions Report (Appendix S)</p> <p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment, water quality and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided. Monitoring and an adaptive approach to dealing with unexpected impacts remains an important part of the management approach</p>
<p>The EA avoids the major issue of Inter Basin Transfer (IBT) that inevitably plague moving water from catchment to catchment.</p>		<p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed..</p> <p>There are a range of interbasin transfer matters explored in the EIS....</p>
<p>What redress, e.g. financial penalty, would there be if the screening system were to be breached, allowing an exotic organism or introducing a fish disease demonstrably absent from Burra Creek or Googong Dam. Is there a protocol for recording screening failure and for reporting routine checking and maintenance e.g. will this be part of the licence?</p>	<p>Chs 2 & 27</p>	<p>The operational environment management plan referred to in section 27.3.3 will take operating conditions into account. Audits will check that operating conditions are being met. Failure to meet operating conditions could constitute a breach of the NSW Protection of the Environment Operations Act, which carries the provision for substantial penalties and corrective actions.</p>
<p>The water quality as applied in Chapter 11 of the EIS, represents water quality in the Googong Storage, not water quality in Burra Creek, as the confluence of Burra Creek with the Queanbeyan River is typically flooded back as far as 1km. Thus the records for nutrients, algae and cyanobacteria are only indicative of lentic Googong Dam backwaters and not lotice (ie flowing Burra Creek). This is not an appropriate basis for comparison.</p>	<p>11.2.3, S 11.2.4, S 11.2.5</p>	<p>Problems with current water quality data are acknowledged. ACTEW has committed to upgrade Burra Creek water quality monitoring and to develop site specific trigger values using ANZECC guidelines which will form the basis for ecological monitoring and potential modification to the operational pumping regime</p>
<p>Tabulation water quality records of the Burra Creek arm of Googong Dam is not a substitute for any analysis of the likely impact of transfer of</p>	<p>11.2.3, S 11.2.4, S 11.2.5</p>	<p>Problems with current water quality data are acknowledged. ACTEW has committed to upgrade Burra Creek water quality monitoring and to develop</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>water from the Murrumbidgee River on the water quality and functioning of Burra Creek. The lack of reference to any basic water chemistry profile for Burra Creek, or at least a collection and analysis of water samples across quiescent and storm flow conditions during the EA is unacceptable.</p>		<p>site specific trigger values using ANZECC guidelines which will form the basis for ecological monitoring and potential modification to the operational pumping regime</p>
<p>As a baseline for assessing future impacts of water releases, the chemistry (and a comparable baseline survey of aquatic plants and fauna, say macroinvertebrates) for both Burra Creek and Queanbeyan River above Washpan Crossing is needed. Reports that may be useful for assessing future baseline impacts of Inter Basin Transfer of Water have been provided.</p>	<p>12.5.3, 28.1</p>	<p>The ACTEW commitment to upgrade Burra Creek water quality monitoring and to develop site specific trigger values using ANZECC guidelines which will form the basis for ecological monitoring and potential modification to the operational pumping regime</p>
<p>References the paper's examples of weakness in the technical reports on Burra Creek and suggests that while these examples are not exhaustive, it is sufficient to raise serious doubts about the credibility of the proponent's conclusions that running the transferred water down the Burra Creek is acceptable.</p>	<p>Chapters 10 to 12</p>	<p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed.</p>
<p>The EA's conclusions are based on assumed flows which are substantially less than the flows for which ACTEW is seeking approval. While the estimates in the EA of water likely to be available to pump appear reasonable, this may change. It is misleading to base conclusions about geomorphology on flow durations substantially lower than those which would be authorised by approval of the project. This invalidates the conclusions about likely impacts on the Creek.</p>	<p>6.13, 10.3</p>	<p>Chapter 10 has been updated to include more discussion on morphology, pools, riparian vegetation, sediment, water quality and aquatic ecology in Burra creek. The impact assessment is based on 100ML per day as stated in section 6.1 of the EIS. The variability in the availability of water in the Murrumbidgee is presented in section 6.13</p>
<p>The EA requires a more realistic biodiversity baseline focussed less on risks to endangered species and to enhancement of fish habitat, and more on a more comprehensive statement of existing habitat and more systematic listing of what organisms are present.</p>	<p>12.2</p>	<p>The focus on endangered species is to satisfy requirements under the Federal EPBC Act. Chapter 12 has been expanded to contain more information on habitat and organisms.</p>
<p>The flow record (chapter 10) when presented as a daily flow chart better shows the critical dependence on flow of rainfall on Burra Creek. Pumping will result in potentially lengthy periods of sustained high flow and this will have an inevitable impact on the ECOLOGICAL functioning of Burra Creek. Appendix 3 to the submission provides graphic demonstrations.</p>	<p>12.3, chapter 10</p>	<p>The impact on the aquatic ecology of Burra Creek has been expended in section 12.3. Further information on flows and their impact on a range of environmental aspects is given in chapter 10.</p>
<p>While there is a chapter devoted to pathogens and human health, the</p>	<p>Appendix P</p>	<p>Conservative estimates of pathogen load as a result of this preferred project</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>EA appears to ignore the major program undertaken by Ecowise Environmental, ActewAGL and the CRC for Water Quality and Treatment between 2000 and 2009 which assessed the catchment to identify sources of human pathogens in native animals in the Googong foreshores and lower reaches of Burra Creek. A range of studies during this time provide a major insight into human and livestock impacts on water quality and on this basis it is reasonable to ask what the purported health risk assessment of introducing pathogens via the Murrumbidgee inter basin transfer scheme modelling really signifies. What estimates of loads of common water born pathogens might be expected to be contributed from the inter basin transfer on say 1 in 2 year storm events in the upper Murrumbidgee Catchment?</p>		<p>are included in appendix P as a basis for assessing the risk of contamination of public drinking water from Googong</p>
<p>ACTEW until recently proposed running the project pipeline from Angle Crossing to the Googong Creek to avoid impacts on Burra Creek. It appears this advice was rejected by the ACT government at least in part due to cost. ACTEW's concern for Burra Creek has weakened and cannot be relied upon for an objective assessment of the likely impact on the Creek. Financial considerations and ease of administration have resulted in the decision to not pipe all the way from Angle Crossing to Googong Res. These considerations should not override environmental consideration. It is important that NSW environment protection system holds up.</p>	Chapter 20; 7.3.1	<p>Pipeline route options, including piping to Googong, were assessed in 2007-2008 for their impact on social, environmental and economic aspects. The preferred project will:</p> <ul style="list-style-type: none"> • increase the length of pipeline, resulting in increased cost, implementation time and potential for higher social and environmental impacts • Require difficult land ownership issues on Googong foreshores to be overcome; and • Achieve little in avoiding Burra Ck management issues. <p>Addendum 2 to the report Fluvial Geomorphic Assessment (Nov, 2009) has been prepared to address the concerns raised in the submissions regarding the geomorphic impacts on Burra Creek and state with greater certainty the location, extent and degree of morphological adjustment along Burra Creek. Overall, the impacts on the morphology of Burra creek will be negligible to minimally altered by the transfer flows however key, localised sites, where a moderate to high degree of adjustment is expected are identified.</p>
<p>Although the EA requirements from DECC required the proponent to consider options for locating the pipeline directly into Googong reservoir, it is apparent in the EA that the decision to cut the pipeline short was taken well before the surveys and analyses forming the appendices to the EA were conducted. It is reasonable to conclude that ACTEW considered the option required by DECC, but against criteria that did not consider it in terms of aboriginal, European, biological and geomorphological history as required by DECC. This is a substantive failing of the EA.</p>	7.3.1	<p>Pipeline route options, including piping to Googong, were assessed in 2007-2008 for their impact on social, environmental and economic aspects. Further information on the options assessment has been included into Chapter 7. The preferred project will:</p> <ul style="list-style-type: none"> • increase the length of pipeline, resulting in increased cost, implementation time and potential for higher social and environmental impacts • Require difficult land ownership issues on Googong foreshores to be overcome; and • Achieve little in avoiding Burra Ck management issues.
<p>With respect to the alternate 'upstream discharge' point adjacent to the Williamsdale Road/Burra Road crossing, which is already being investigated and would be allowed as a variation under the terms of approval. Will the community be entitled to a right of reply to this</p>	4.4 and Appendix S	<p>Although a minor amendment to the original proposal, the scope of the preferred project is largely the same. In line with this ACTEW does not propose that any further notification is required. ACTEW remains interested in the community view on this matter and has accordingly undertaken a targeted</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
variation?		community liaison with those community groups and individuals that may be affected by this change (either positively or negatively). Refer to Attachment 3 of Appendix S, <i>Murrumbidgee to Goongong Water Transfer Community Consultation Report</i> .
Individual O There is little water flowing in the Murrumbidgee River these days, so this project raises some key questions.	9.4.1	Future pipeline extractions allow for the impact of climate change and the protection of river environmental flows and therefore acknowledges that there will be periods when there is not enough water flowing in the river to allow pumping to take place. Projected utilisation of the pipeline is less than 100%, as is evident from the figures in Table 6.3 of the Draft EIS/EA and the data in Section 4.1 of Appendix C. This is due to the impact of climate change and protection of environmental flows. Nevertheless, despite these expected limitations, the amount of water available to be pumped is projected to be sufficient to make the preferred project viable.
Is the ACT's water cap related to the 'reduced inflows into our dams and longer, more frequent droughts' or is it a historical artefact that bears no relationship to the current and forecast rainfall levels?	5.2.1	ACTEW's water extraction from the rivers in the Murray-Darling Basin is consistently within the constraints set under the CAP system. This proposal does not depend on credits that have been accrued as a result of past low extraction. The CAP is subject to periodic review in order to ensure current environmental conditions are taken into consideration.
Is the need to pump up to 100megalitres a day really due to the need to replace reduced flows into ACT catchments or is it more about enabling Canberra's population to grow by another 200,000 because the ACT Government's primary economic policy is to increase population?	5.3, 29.1	The preferred project is part of a range of water supply and demand management initiatives to secure the future water supply for the ACT. The selection of projects is based on their ability to secure supply for population numbers based on the ACT Government Spatial Plan in light of worst case climate change predictions. The EIS is not an appropriate forum for the discussion of ACT economic policy. The justification for the preferred project is discussed in detail in Chapter 29.
Is the ACT definition of environmental flow valid and if so what mechanism will be used to prevent failure to ensure environmental flows are maintained as has happened in the Snowy River?	6.10.3; Chapter 27	Environmental flows are discussed in Section 6.10.3 of the EIS. ACTEW believes that the adoption of the e flow rules previously determined for the Murrumbidgee River at the Cotter pump station, as initial pumping rules for the River at Angle Crossing will protect the aquatic ecology of the River. The management and monitoring programmes described in chapter 27 of the EIS are designed to provide a basis for refinement of the e flow rules in practice if necessary. The overall objective is to maintain the aquatic health of the river downstream of angle Crossing.
What will be the effect of pumping up to 100megalitres a day out of the Murrumbidgee on the Murray River in NSW, Victoria and South Australia given the nationwide alarm that low flow rates are already causing widespread environmental damage?	9.4.1	Additional discussion has been factored into Section 9.4.1 in response to queries from the community about the net impact of the preferred project on water flow downstream of the ACT. Overall, the Murrumbidgee to Goongong Water Transfer will result in a 1 % change in average flows leaving the ACT (with the average flow leaving ACT being 509 GL/annum).

Comment	Relevant Section modified in the EIS	ACTEW Response
BURRA Pipeline Sub-Committee		
Opposed to the current route in favour of what is known as the 'early upstream discharge' that will take the pipeline close to the junction of Williamsdale and Burra Roads for discharge.	Chapter 6 ; 23.3.2	ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palarang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.
The 'early upstream discharge' option is not in an environmentally sensitive location as it is currently overrun by blackberry bushes, willow trees and reeds.	Chapter 6 ; 23.3.2	ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palarang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.
The 'early upstream discharge' option will reduce the impact of the pipeline on 8 residences in MacDiarmid, Homestead and Lagoon Areas	Chapter 6 ; 23.3.2	ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palarang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.
<p>The following negative issues arise from the current proposed route:</p> <ul style="list-style-type: none"> - large number of air vents close to residences and the associated noise impacts. - Unpredictable sudden noise from these vents may cause livestock to stampede - at least two creek crossing with the associated potential for damage to the creek bed. - Impacts upon 8 residences with stock holdings and the associated costs of relocating stock - Significant blasting is required for the existing route. - Current discharge location is in an area of Yellow Box Grassland and the route crosses endangered fauna and now gum areas, which could be avoided if the alternate route was adopted. 	Chapter 6 ; 13.1.1, 13.4, 23.3.2	<p>ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the Preferred Project Report.</p> <p>A process for working with Palarang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the Draft EA. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.</p> <p>With respect to the outlet location and its potential impact on Yellow Box Grassland, appropriate mitigation measures will be implemented during construction to minimise any potential adverse impact and offsets (refer to section 13.4) will be provided for any threatened flora identified within the impacted area.</p>
Cost savings to ACTEW from the alternate route could be used to rehabilitate approximately 2km of Burra Creek which would bring wildlife	23.3.2	A process for identifying community benefits arising from the preferred project is described in 23.3.2.

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<p>back into the area and improve the visual amenity of the creek. This could also include the creation of a walking track from the Williamsdale Road, along the creek and into the Googong Foreshores reserve.</p>		
<p>Individual P Opposed to the current route in favour of what is known as the 'early upstream discharge'.</p>	Chapter 6 ; 23.3.2	ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palerang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.
<p>The 'early upstream discharge' option is not in an environmentally sensitive location as it is currently overrun by blackberry bushes, willow trees and reeds.</p>	Chapter 6 ; 23.3.2	This comment is supported by the Aquatic Ecology assessment included in Appendix G. ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palerang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.
<p>The 'early upstream discharge' option will reduce the impact of the pipeline on 8 residences in MacDiarmid, Homestead and Lagoon Areas</p>	Chapter 6 ; 23.3.2	ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palerang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.
<p>The following negative issues arise from the current proposed route:</p> <ul style="list-style-type: none"> - large number of air vents close to residences and the associated noise impacts. - Unpredictable sudden noise from these vents may cause livestock to stampede - at least two creek crossing with the associated potential for damage to the creek bed. - Impacts upon 8 residences with stock holdings and the associated costs of relocating stock - Significant blasting is required for the existing route. - Current discharge location is in an area of Yellow Box Grassland and the route crosses endangered fauna and now gum areas, which could be avoided if the alternate route was adopted. 	Chapter 6 ; 23.3.2	ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palerang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.

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<p>Cost savings to ACTEW from the alternate route could be used to rehabilitate approximately 2km of Burra Creek which would bring wildlife back into the area and improve the visual amenity of the creek. This could also include the creation of a walking track from the Williamsdale Road, along the creek and into the Googong Foreshores reserve.</p>	23.3.2	<p>ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Paterang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.</p>
<p>Individual Q</p> <p>The EA carefully avoids issues that plague moving water from one catchment to another, and there is no consideration of the ECOLOGICAL impact of the raw Murrumbidgee flows on the ecology of Googong Dam.</p>	Ch 24, App P	<p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail depends on the Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed. The major risk to the Googong Res is the contamination of drinking water quality and this is addressed in chapter 24 and Appendix P.</p>
<p>Although required by the Director General, alternate pipeline routes have not been described in sufficient detail to enable an understanding of the reasons for preferring certain options and rejecting others, other than in terms of cost.</p>	7.3	<p>More detail on the consideration of alternative routes has been incorporated into Chapter 7 of the EIS.</p>
<p>NSW Government has a legislative responsibility to protect the environment of Burra Creek and ACTEW's decision to discharge the transfer flows is environmentally irresponsible.</p>	Chapters 10, 11 and 12	<p>In response to queries from the community and NSW Government agencies, ACTEW has included additional discussion of the impact of the preferred project on Burra Creek in Chapter 10. This Chapter read in conjunction with Chapters 11 and 12 provide an overview of the preferred projects impact on Burra Creek and the associated mitigation measures. ACTEW believes that the mitigation measures address any concerns in relation to Burra Creek.</p>
<p>The degeneration of the creek following the sustained scouring as a result of pumping up to 100MG/day for up to 200 days per year, will lead to major and permanent damage to the riparian environment. The expense of rehabilitation work along the creek will become prohibitive and the ecology of Burra Creek will be changed forever.</p>	Chapters 10 to 12	<p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided and an</p>

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<p>Question the viability of this proposal when Cotter pump station already has the capacity and existing pipeline infrastructure to move water from the Murrumbidgee to Googong, and the EA acknowledges that water released from Tantangara can be transferred to Mount Stromlo treatment plant via the Cotter Pump station.</p>	7.2.2	<p>extensive monitoring scheme is proposed..</p> <p>The provision of an additional abstraction point on the Murrumbidgee River abstraction was a key recommendation of investigations into the future of the ACT water supply.</p>
<p>Believe it is essential that the precautionary principle be applied to this proposal as it is presented in the EA. We consider the EA to be biased in the proponent's favour, its methodology is flawed and lacking sound scientific basis. It is essential that careful, decision-making, scientific scrutiny be undertaken by independent experts with sound local knowledge.</p>	6.12 and chapter 31	<p>While ACTEW funded all the necessary assessments, experts were selected based on their areas of specialist expertise and have provided independent advice. An additional table has been inserted into Chapter 31 which provides the qualifications of the various specialists that undertook the assessments for the EIS. The EIS document was produced based on these specialist assessments by a team with recognised qualifications and experience in environmental assessment. The Precautionary Principle, worst case scenarios and triple bottom line assessment were adopted as described in Section 6.12.</p>
<p>Conservation Council ACT Region</p> <p>Note with concern that the nature of environmental flows from Tantangara to Angle Crossing have not been evaluated and presented in the EIS. Suggests the following questions be considered in the EIS:</p> <ul style="list-style-type: none"> - Why does ACTEW propose a 'pump on demand' strategy rather than restricting water transfers to late winter and spring when additional water releases from Tantangara could be managed as additional e-flow for upper Murrumbidgee? - What are the current e-flow rules for the Upper Murrumbidgee and have they been currently suspended by the NSW Govt? - What additional flows is Snowy Hydro supposed to be releasing from Tantangara as part of the 2002 Deed. Is this being released? If not why not? - How can we be sure that any additional water entitlement from ACTEW is not double counted as part of Snowy Hydro's e-flow release from Tantangara? 	1.3 and 5.3.5	<p>Environmental flows will continue to be delivered by Snowy Hydro in accordance with their licence obligations administered by the NSW Office of Water.</p> <p>Any flows released for ACTEW to abstract to augment the potable water supply will be independent of environmental flows and will have no impact on Snowy Hydros ability to supply water for the environment.</p>
<p>Consider the multi-criteria assessment exercise done to select the pipeline route and in particular the Angle Crossing aspect has been in adequate.</p>	Chapter 7	<p>More detail on the consideration of alternative routes has been incorporated into Chapter 7 of the EIS.</p>
<p>Support the detailed assessment of the potential impacts on Burra Creek as provided in the submission by Burra Landcare, Molonglo Catchment Group and the Upper Murrumbidgee Catchment Coordination Committee.</p>	Chapters 10 to 12	<p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
		adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed..
Requests that further assessment of the option to pipe all the way to Googong be undertaken. The EIS does not adequately demonstrate that pumping all the way is not a prudent and feasible option.	7.3.1	<p>Pipeline route options, including piping to Googong, were assessed in 2007-2008 for their impact on social, environmental and economic aspects. Further information on this has been included into Chapter 7 of the EIS. The preferred project will:</p> <ul style="list-style-type: none"> • increase the length of pipeline, resulting in increased cost, implementation time and potential for higher social and environmental impacts • Require difficult land ownership issues on Googong foreshores to be overcome; and • Achieve little in avoiding Burra Ck management issues.
Suggest that the proposed rehabilitation plan and offset plan be available for public comment prior to commencement of construction. Suggest these plans should be approved by DECC.	13.4, 17.3.3, 17.5, 27.3.4	An offsets strategy and rehabilitation plan is being developed in consultation with regulatory government agencies. The EIS sets out the approach and concepts to be included in offset strategy. The offset plan and rehabilitation plan will be approved by the relevant agencies and will be implemented as part of the construction phase of the program.
<p>Recognises that as demonstrated by other pipeline projects in the area, rehabilitation of quality woodland and grassland understorey is problematic. In order to keep the disturbance to a minimum, recommends that approval conditions incorporate the following:</p> <ul style="list-style-type: none"> - construction corridor should be kept strictly to 15m where the route crosses native vegetation. - The 3.3KV power supply between the two pump stations in the ACT should be laid within the pipeline trench or under Angle Crossing Road to avoid an extra line of disturbance. - Excavated spoil should be placed on a geo-fabric rather than directly on adjacent vegetation and stored for as short a period as possible. - Care must be taken to minimise vehicle and machinery movement and turning, manoeuvring activity which must be contacted to the 'construction corridor'. Extra constraint should be placed on machinery and vehicle movements during wet weather. - The 11KV powerline within the ACT should not be laid through secondary grassland or woodland. If it cannot be laid under the road or avoid native vegetation, then placing the line on poles would be preferable. 	17.5.1, 27.3.4	<p>The pipeline corridor will be minimised where practicable to the extent necessary for construction of the pipeline and will not exceed the 40 m construction corridor. The corridor will be fenced prior to topsoil stripping and construction commencing; this will restrict the amount of disturbance, noting that in some particularly sensitive areas the corridor narrows down to 15m. 33KV power between pump stations will follow different route as terrain is too difficult.</p> <p>All vehicles will be confined to access roads which will be fenced and the approved corridor which will be fenced. The access roads will be all weather gravel access and will be rehabilitated after works complete. The access along the pipeline will be on gravel road within fenced corridor and will be rehabilitated after construction</p> <p>The 11KV cable route to the high light pump station site has already been granted DA approval. This work is not included within the preferred project.</p>
Commend the commitment to pre-construction weed control and weed hygiene measures, and notes these should be included in the rehabilitation plan. There should be a commitment to follow-up weed	27.3.3	Weed control measures and monitoring regimes will be documented in the Flora and Fauna Management Plan and approved by the regulatory authorities.

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<p>control on the route at least 3,6 and 23 months after work is completed and then every year for at least 10 years.</p>		
<p>To minimise the impact of the trench the following practices should occur:</p> <ul style="list-style-type: none"> - attempts should be made to take swards of native vegetation growing above the trench, place these on geo-fabric and then replace them back on the re-laid trench. - plantings on the route should include locally indigenous shrubs that are favoured woodland bird habitat. Within potential pink-tail worm lizard habitat, surface rock should be carefully put to one side and replaced within the 15m corridor once the pipeline has been laid. - top soil should be dug so that it can be replaced back over the trench and should not be stored for longer than 3 months. 	13.6, 27.3.3	<p>ACTEW acknowledge the comments and have committed to developing a Flora and Fauna Management Plan. The flora and fauna management will be prepared as part of the construction environmental management plan, outlining the procedures to manage and minimise the potential for impact to terrestrial ecology. Top soil will be stockpiled on stripped ground and after the pipe is laid and buried the rehabilitation plan will be implemented. The strip topsoil to rehabilitation timeline will be no more than 3 months.</p>
<p>A condition of approval should be that no more than 100m of trench be open at one time. A person with animal handling qualifications should be employed to inspect open trenches at first light and free any trapped wildlife. Records of trapped animals should be provided to relevant authorities.</p>	13.6.1	<p>In response to this comment the trench will be fenced to prohibit access from unauthorised persons or animals. The trench will be battered down to provide exit for any animals which enter trench. Trained personnel will be available onsite to monitor activities and minimise impacts on native species and livestock.</p>
<p>Work should not occur in woodland habitat during breeding season of the threatened woodland birds recorded in the area. Avoiding work in the October to January period would also avoid peak time for native annuals, seed production and growth of many native species.</p>	13.6.1	<p>In response to this comment a Terrestrial Flora and Fauna Management Plan will be developed to minimise the impacts on native species and livestock during construction of the preferred project.</p>
<p>The EIS has an inconsistency in relation to significant woodland and Swainsona Recta habitat - in the Terrestrial Ecology section, reports that a culvert will be used, elsewhere in the EIS it talks about lifting tracks - this does not inspire confidence. Any area of high or moderate quality woodland in the vicinity of the railway should be avoided.</p>	13.3.2, 13.6.1	<p>ACTEW acknowledge this comment. Where pipeline is required to pass beneath the railway, tracks will be lifted and sleepers and aggregate temporarily removed, then replaced following laying of the pipe. Easement in this area will be limited to 15m and fenced to minimise the impact on Swainsona Recta and other native species habitat.</p>
<p>The western bank of Angle Crossing should be a designated 'no go' area for machinery to protect Pomaderris Pallida from inadvertent damage.</p>	13.6.1	<p>The western bank of Angle Crossing is outside extent of works. However in response to the premise of the comment vehicles will be limited to designated areas.</p>
<p>It is unclear whether infrastructure such as pump stations etc require asset protection zones and whether this clearing has been considered as part of the impact. Buildings should be designed so that minimum clearing for fire protection is required.</p>	21.3	<p>Bushfire poses a risk to the high lift pump station and associated buildings (ACT) and the mini-hydro electric power facility (NSW). Other infrastructure associated are either underground, encased by non-flammable material, or otherwise constructed of non-flammable materials and are not considered at risk from the effects of bushfire. A Bushfire Management Plan and an Emergency and Incident Response Management Plan (EIRMP) will be developed in consultation with the ACT Government Authorities to guide the appropriate response in the event of an unexpected fire. Anticipated fire protection zones are described in Chapter 21</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
		and have been taken into consideration in this EIS.
Recommend that a full-time on-the-ground environmental officer with ECOLOGICAL expertise be engaged for the entire construction period. Suggests that this be an Approval Condition and that the officer be employed by and report to DECC, funded by the proponent.	13.6.1	The EIS has been amended to reflect construction activity management. The construction team will include an environmental manager to implement and manage the CEMP and sub-plans
Council opposes the use of offsets, apart from exceptional circumstances where all other efforts to avoid and minimise environmental losses have been exhausted. Attach copy of Council's Offset policy.	13.4	A hierarchical approach of avoid, mitigate, rehabilitate and offset has been applied. Offsets will be used for unavoidable impacts and will result in a conservation gain.
The pipeline proposal is likely to involve the felling of significant numbers of hollow bearing trees, which are essentially an irreplaceable resource, where offsetting can only be argued as effective where it prolongs the expected life and extent of other trees providing the same form of habitat. The precautionary approach embedded in the Property Vegetation planning rules applied to nearby properties in NSW require much higher ratios (around 10:1) than the 3:1 ratio suggested in the EIS, and thus a greater consideration of all native vegetation elements lost, including isolated paddock trees, than the areas or native vegetation currently calculated in the EIS.	13.4	Hollow bearing trees are one element being considered in development of the offset strategy
Council urges Department of Planning to attach approval conditions that require ACTEW and the ACT Government to respect the biodiversity assets on the ACT rural lease purchased by ACTEW for this project. Much of the woodland on the leased land is capable of being managed to restore its condition and is well placed in both location and biodiversity value to be recognised as part of the ACT's Murrumbidgee River Corridor (Gigerline Nature Reserve). The Council is concerned that the lands not required for the pipeline will be leased again for rural purposes and consequently these Ecologically significant woodlands will deteriorate.	13.4	Offset values and opportunities within ACTEW rural leased land area will be the focus of the offsets strategy
This project should have been referred to the Commonwealth for consideration under the EPBC Act. The Council is of the view that proposals to develop essential infrastructure should be viewed more sympathetically if the proponent has made every possible effort to minimise the development footprint, and has demonstrated any environmental damage will be countered by ensuring that any adjacent lands containing endangered woodlands are added to the nature conservation estate.	2.4; 2.5; 22.4	Project was referred to DEWHA in accordance with procedures outlined in Chapter 2. The Commonwealth has decided that the preferred project will be a controlled action to be assessed by a Public Environment Report. Offsets will be established to remediate any adverse impacts of the preferred project on the environment. These are outlined in Chapter 22.
Territory and Municipal Services, including PCL and the Conservator		

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>It is critical that the offset policy includes management actions that can be implemented with respect to the woodland to improve its habitat and biodiversity values</p>	<p>13.4, 17.3.3, 17.5, 27.3.4</p>	<p>ACTEW acknowledge the comment. A management and rehabilitation plan is being developed in association with the offsets strategy. This will detail management actions with respect to woodland (where applicable).</p>
<p>Table 9.6 and Fig 9.6 through to Table 9.14 and Fig 9.10 show the modelled impact of pumping on flow level, velocity and heights in the Murrumbidgee under various scenarios. However, the tables do not identify the maximum impact in either magnitude or locations on the flow curves. The maximum deviation from the natural condition and the location on the flow curves must be stated in the EIS.</p>	<p>9.4.1</p>	<p>Extreme low and high variations of flow (5th and 95th percentile) are shown in the Tables 9.6 and 9.7 to ensure that the range of potential conditions is considered. Angle Crossing is the location of maximum variation because any opportunities for further inflows occur downstream.</p>
<p>The reduction in the water level downstream of Angle Crossing should be clarified as it is claimed to be 2mm and also 2cm (pg 137 & Table 9.9)</p>	<p>S 9.4.1</p>	<p>This has been confirmed at 2cm.</p>
<p>It is acceptable that the NSW and EPBC Significance Assessment for species co-listed in NSW or federally is considered appropriate, but only where impact to both Murrumbidgee populations and Googong/Queanbeyan river populations are considered jointly and severally. The consideration of ACT species in NSW assessments should be detailed in the EIS in section 12.3</p>	<p>12.3</p>	<p>The impact assessment has been done to the requirements of each jurisdiction.</p>
<p>The EIS should include detailed discussion on the potential impacts on Murray River Crayfish, which are listed as vulnerable under the Nature Conservation Act 1980.</p>	<p>12.2.1, 12.2.3, 12.3.12, 12.5.2, Appendix G2</p>	<p>In response to issues regarding Murray River Crayfish further details are provided in Chapter 12 and Appendix G2 - Assessment of Significance for the Murray River Crayfish.</p>
<p>The Macquarie Perch is now listed an Endangered in NSW. Table 12.2 should be corrected.</p>	<p>Table 12.2</p>	<p>The EIS has been amended to reflect this comment.</p>
<p>The impact assessment should also refer to the ACT Fisheries Act 2000 and the ACT Government's Action plan 29, Ribbons of Life: ACT Aquatic Species and Riparian Zone Conservation Strategy 2007.</p>	<p>Chapter 12</p>	<p>Chapter 12 has been updated to reflect the requirements of the ACT Aquatic Species and Riparian Zone Conservation Strategy 2007.</p>
<p>The velocity of the educator pipes which deal with sediment in the low level pump wells is not well stated. There is potential for erosion and attraction of migrating fish from this discharge. Erosion at the discharge of the educator system must be minimised. Entrainment in the educator system of fish moving upstream should be prevented.</p>	<p>6.3.2</p>	<p>The velocity of the educator system will be determined in testing currently being undertaken and is expected to be in the range of 1.2 m/s to 2.5 m/s. Discharge from the educator system will be directed towards the main channel of the Murrumbidgee River, adjacent to the east bank of the river. This section of the river is naturally self cleaning, with studies showing that sand deposits are readily dispersed by the current. The educator system is not expected to cause erosion and will be designed to minimise the risk of fish entrainment.</p>
<p>Rehabilitation and offset of riparian and aquatic habitats impacted by the pump stations should be provided. Consultation with the Upper Murrumbidgee Demonstration Reach project managers (PCL) is recommended</p>	<p>13.4, 17.3.3, 17.5, 27.3.4</p>	<p>Due to the minimal impact on riparian areas and the absence of any threatened plant species, riparian offsets will not be provided, however any native vegetation expected to be lost as a result of the preferred project has been included in the calculation for the area of offsets that must be provided.</p>
<p>Clarification is required on the flow assessment of fish passage at Angle</p>	<p>12.3</p>	<p>Fish passage is addressed in s 12.3 and appendix G where it is concluded</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>Crossing. Research on fish movements in response to flow levels through both constructed and natural barriers should be included as part of the investigations into Eflows.</p>		<p>that the flow abstraction from the River will have minimal impact on the already substantial obstruction to fish passage at Angle Crossing. ACTEW will consider proposals to investigate fish passage further but at this stage does not see the value in such studies.</p>
<p>It is recommended that ACTEW provides professional advice confirming that future construction of fish passage at Angle Crossing would not incur additional costs or constraints as a result of the project, or preferably, an appropriate fish passage structure be constructed as part of this proposal and consultation with PCL will be undertaken in the design of the structure.</p>	12.3.3	<p>Angle Crossing is recognised as a significant barrier to fish passage in all but the top 4% of flows and at this high flow rate the reduction in depth due to the project will be minimal. ACTEW is not aware of any additional impacts of future construction of a fish passage.</p>
<p>An in-depth assessment and research on the effects of the Tantangara Release is required.</p>	1.3 and 5.3.5	<p>Tantangara Water Transfer Project is a separate but closely related project on which the Murrumbidgee to Googong Project does not rely. Sections 1.4 and 5.3.5 of the Final EIS provide a discussion on Tantangara.</p>
<p>The impacts on Burra Creek will be significant and ongoing. It is recommended that monitoring be undertaken to determine the use of the creek by native and alien fish and that pumping rules be amended to reflect the results of that monitoring. The contention that the discharge will result in an 'improvement' to the creek ecosystem is not supported. It should be referred to as an 'altered ecosystem'.</p>	27.3, 27.4, 12.3	<p>The commitment to monitoring and management in chapter 27 is consistent with this comment. The environmental aspects of Burra creek which will benefit, as well as those that could feel adverse impact are identified in chapter 12.</p>
<p>The adoption of adaptive management as a mitigation measure places the onus upon the proponent to develop a monitoring program that adequately informs the decisions. The monitoring and research program for the aquatic ecosystem including fish, in both in the Murrumbidgee and Burra/Googong, should be developed in consultation with the Research and Planning unit of PCL. The final program should be approved by Research and Planning.</p>	28.1.1	<p>ACTEW has made a commitment to undertake adaptive management work. This will be described in the adaptive management plan.</p>
<p>A final report is yet to be received and approved by the Heritage Council, outlining any additional approved excavation works and documents the results of the entire field program within the ACT. Heritage supports the Mitigation Measures in the Draft EIS relating to heritage in the ACT on the condition that no archaeological investigations are undertaken without the endorsement and approval of the Heritage Council.</p>	No change to the EIS	Completed
Individual IR		
<p>Oppose the project felt that the time to review the document was too short and has a range of concerns. Recommends that the construction of the pipeline be put on hold until the outcome is known from the Enlarged Cotter Dam and upgraded Cotter Pumping capacity.</p>	4.4	<p>The timeframe for response to the document exceeded the statutory requirements and are detailed in Chapter 4. The community has been encouraged to participate in discussion on this preferred project since its inception in 2007.</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
Concerned about the impact on the already depleted water flow in the Murrumbidgee River and impacts to downstream users.	9.4.1	Additional discussion has been factored into Section 9.4.1 in response to queries from the community about the net impact of the preferred project on water flow downstream of the ACT. Overall, the Murrumbidgee to Googong Water Transfer will result in a 1% change in average flows leaving the ACT (with the average flow leaving ACT being 509 GL/annum).
Concerned about the cumulative impact on this project, Cotter Dam and Cotter Pumping Station on the environment and catchment flow further down the river.	9.4.1	Additional discussion has been factored into Section 9.4.1 in response to queries from the community about the net impact of the preferred project on water flow downstream of the ACT. Overall, the Murrumbidgee to Googong Water Transfer will result in a 1% change in average flows leaving the ACT (with the average flow leaving ACT being 509 GL/annum). The cumulative impacts of these projects are also guided by the CAP arrangements which limit water use by the ACT.
Concerned about environmental impact on Angle Crossing noting its popularity as a recreational area.	23.3.1	As a result of concerns about public safety, Angle Crossing beach and parking area will be temporarily closed for the duration of construction – a period of approximately 16 months. ACT Parks Conservation and Lands (PCL), the managers of Angle Crossing, have proposed that an alternate recreational area be utilised during construction, and that the site of Tharwa Sandwash, located downstream, and approximately 9km by road will be a suitable alternative site for recreational users.
Impacts from the construction and operations of Site Offices at Angle Crossing and suggested pipeline storages along the Route.	6.11	In response to this comment further discussion is provided in section 6.11 of the Final EIS.
Power supply will create an eyesore, pump stations will attract vandalism and illumination of these sites will be seen from a considerable distance	18.4.2, 18.6.3	The question of visual impact of the electricity supply is addressed in section 18.4.2 of the Draft EIS/EA, and is assessed as being negligible. The pump station will be fenced to prevent vandalism (section 18.6.3). The question of illumination is addressed in Section 18.6.3 where it is stated that all lighting will be designed to minimise light spill in accordance with Australian standards.
Concern about transfer of muddy water, carp and other unwanted aquatic life from the Murrumbidgee to Googong, Queanbeyan River and Burra Creek.	12.2.2, 12.2.5, 12.3.1	In response to issues regarding alien fish species additional information has been provided in the EIS. This can be found in sections 12.2.2, 12.2.5 and 12.3.1. Alien fish species, Carp Cyprinus and Oriental Weatherloach are common in the Murrumbidgee River. These species are present in the Googong catchment but have not yet been recorded in the Googong Reservoir. The potential for transferring alien species such as carp from the Murrumbidgee River to Burra Creek and Googong Reservoir is a significant risk which the proponent proposes to eliminate through the use of an effective intake screen including fish egg filtration units, to prevent the transfer of fish, larvae and eggs. The effectiveness of this screen will also be monitored. The preferred project is not likely to contribute to the operation of this key threatening process.
Negative impact on landholders along the route both during construction	6.11	Management plans will be prepared in consultation with relevant experts and

Comment	Relevant Section modified in the EIS	ACTEW Response
and after.		<p>endorsed by relevant agencies.</p> <p>Impacted groups/individuals will be consulted on appropriate mitigation measures during and post construction to minimise potential adverse impacts where applicable</p>
<p>Negative impact of the noise valves. There is no mention of how long it will take to fill the pipe with water and associated noise impact of the valves.</p>	20.4.2, Chapter 3	<p>In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S 20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any significant levels of noise associated with the operation of the scour valves. Location of air and scour valves in shown at figure 3.9</p>
<p>Property valuations have not been reasonable for properties directly affected and there have been instances of 'bully boy' tactics by representatives of the proponent. There is no compensation for residents that will be impacted by the noise etc, but do not have the route pass through their property. There are no benefits for the local community, although they will all be effected.</p>	4.2.4; 23.3.2	<p>ACTEW's offer of compensation to affected land-holders has been determined by valuation methodology in accordance with the Land Acquisition (Just Terms Compensation) Act 1991. The ACTEW Landholder Management Plan provides that landholders are afforded the opportunity to obtain an independent valuation. ACTEW has also made a \$5,000 contribution towards valuation and solicitors fees. ACTEW's continued liaison with landholders is outlined in Chapter 4.</p> <p>The community benefits arising from the preferred project will be developed in consultation with Palerang Council and the local community as described in Chapter 23.</p>
<p>Environmental issues associated with the discharge of micro organisms from water laying the pipeline and then discharged through the scour valves without any catchment dams.</p>	6.10.3	<p>As discussed in Section 6.10.3 of the draft EIS/EA the scour valves will drain into a tanker, thereby avoiding sediment release. Scour valve operation will be infrequent, of the order of one or twice per year, and access will be discussed with landowners as necessary.</p>
<p>Negative impact on traffic during construction period. Given the community's use of the road on the weekend, no construction should be permitted on the weekends.</p>	6.11, 25.3, 25.5	<p>Management plans will be prepared to minimise potential construction impacts and endorsed by relevant agencies.</p>
<p>Impact on Endangered Yellow-Box, Woodland and remnant Snow Gums along the proposed route</p>	13.6.1	<p>Impacts on native flora will be minimised through the adoption and implementation of measures described in the Terrestrial Flora and Fauna Management Plan and the provision of the offsets strategy.</p>
<p>Impact on the heritage values of the old Poplar trees at the Eastern (Burra) end of Williamsdale Road</p>	No change to the EIS	<p>The preferred project will not involve direct impact to the poplar trees at the eastern (Burra) end of Williamsdale Road. The erection of temporary fencing around the trees for the duration of construction works will be included as a specific action in the Construction Environmental Management Plan.</p>
<p>Environmental impact on Burra Creek downstream from the pipelines discharge</p>	Chapters 10 to 12	<p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
		<p>for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed..</p>
<p>The increased greenhouse emissions during construction and operation in unacceptable.</p>	<p>Chapter 22</p>	<p>A comprehensive assessment of greenhouse gas emissions associated with the construction and operation of the preferred project is detailed in Appendix N of the EIS. A summary is provided in chapter 22. This has been updated to provide more detail in response to questions during the public exhibition period. Emissions will be minimised as much as possible and offset where necessary.</p>
<p>If project if approved suggest that the intake from Murrumbidgee River be relocated to the area downstream of Angle Crossing where in the past there was a large sand removal facility and there is currently a pump providing water to the Williamsdale Garage</p>	<p>7.3</p>	<p>In response to submissions received during public exhibition, additional information on the assessment of the alternate pipeline routes has been included in Chapter 7 including their advantages and disadvantages in terms of triple bottom line aspects.</p>
<p>Alternate route could also be to construct the pipeline from near Point Hutt Crossing to Hume that behind Queanbeyan to Googong. While this route is longer it will have less environmental impacts.</p>	<p>7.3</p>	<p>In response to submissions received during public exhibition, additional information on the assessment of the alternate pipeline routes has been included in Chapter 7 including their advantages and disadvantages in terms of triple bottom line aspects.</p>
<p>There is no mention of the construction of a 'hammer tank' to protect the pumps in the case of failure.</p>	<p>No change to the EIS</p>	<p>A water hammer tank has not been included in the design because it is not necessary.</p>
<p>There is no mention of how run-off rainfall into my main catchment dam will be protected when pipeline excavations are underway.</p>	<p>6.11, 28.1</p>	<p>Management plans will be prepared to minimise potential construction impacts and endorsed by relevant agencies. Impacted groups/individuals will be consulted on appropriate mitigation measures during and post construction to minimise potential adverse impacts as required</p>
<p>Suggest that all dwellings within 100m of the pipeline should have prior building inspections and post inspections by an independent assessor to record any damage as a result of blasting and the use of heavy plant. This will allow clear remedial action to be undertaken.</p>	<p>20.6</p>	<p>Building condition surveys will be undertaken at all potentially impacted dwellings prior to commencement of vibration generating works (such as pile-driving). These will be repeated at works completion</p>
<p>There has been no assessment undertaken on the impact of trenching operations on my pine plantation adjacent to the pipeline route.</p>	<p>No change to the EIS</p>	<p>There is no direct impact on these trees.</p>
<p>During considerable road closures ACTEW should compensate landowners for extra fuel and time costs of by-pass routes.</p>	<p>25.3</p>	<p>Impacts are short term only, no compensation is proposed</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>ACTEW must produce and distribute a Traffic Management Plan with frequently updated traffic signage on all roads to ensure local residents are kept informed.</p>	25.5	<p>Management plans will be prepared to minimise potential construction impacts and endorsed by relevant agencies.</p>
<p>Individual S</p> <p>Expresses cautious support as long as community concerns are addressed and real effort is made to minimise environmental damage.</p>	No change to the EIS	<p>ACTEW appreciates all submissions made on the draft EIS/EA and will continue to strive for community acceptance of the preferred project through open and efficient channels of communication and dedication to minimising environmental harm.</p>
<p>Burra Creek will be impacted, but this is a sad result of population expansion and development. Water in the creek will provide a substantial water course which would contribute to the recreational potential of the Googong Foreshore area.</p>	Chapters 10 to 12	<p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed.</p>
<p>To minimise the impact of fluctuations on flow in Burra Creek, requests that authorities maintain a close adherence to the advice of the environmental experts who have assessed how to best mitigate these risks, including the use of filters and sensitive flow control regimes.</p>	Chapters 10 to 12	<p>The advice of experts is contained in chapters 10 to 12 and will be adhered to. This includes advice on flow variations and mitigating actions.</p>
<p>Friends of Grasslands</p> <p>Supports reduction of construction and scour widths in areas that contain endangered ECOLOGICAL communities and or threatened species habitat, preferably to 15m if possible.</p>	6.11	<p>Construction impacts for pipeline construction have been minimised as described in EIS/PPR</p>
<p>Supports mitigation measures outlined in Chapter 13 and asks that they be included in development contracts to ensure they are fully implemented</p>	No change to the EIS	Noted
<p>Urges that commencement of pipeline construction to be within areas that contain low conservation value vegetation so that the time delay between vegetation removal and subsequent rehabilitation in high conservation value areas is minimized</p>	27.3.4, 28	<p>Pipe construction and associated construction activities will be followed as soon as practicable with rehabilitation. ACTEW acknowledges that it is important for successful rehabilitation to ensure that the delay in rehabilitation is minimised. The proponent is committed to minimise impacts on EECs and other sensitive environmental areas and will put active measures in place to this effect as described in 27.3.4.</p>
<p>A commitment needs to be made to clean all service vehicles undertaking maintenance work in the long term in addition to an on-going program to eliminate noxious weed reinfestation.</p>	27.3.3	<p>Section 27.3.3 of the EIS refers to the commitment to implement an operational flora / fauna plan which will include weed control.</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>The vegetation monitoring strategy with respect to the rehabilitation effort, should include longer term monitoring perhaps with a bond to cover a 10 -20 year period to ensure rehabilitation has been effective</p> <p>Supports the objectives of the Offset Plan, while noting that it is preferable that offsets not be required at all. Supports the principle that offsets and their actions be enforceable and do in fact deliver a net improvement in biodiversity over time.</p>	<p>27.3.4</p>	<p>A monitoring program will be implemented for one year after rehabilitation has begun by the construction team.</p>
<p>The rehabilitation and offset plans should be available for consideration and agreement by the community before construction work commences.</p>	<p>13.4</p>	<p>Comment agreed and noted.</p>
<p>It would have been useful to know the final location and status of offsets in relation to other projects in the area. Supports an integrated approach to planning additional infrastructure in the area while maintaining biodiversity of the grassy ecosystems in the area. This integrated approach should be developed and agreed to by the community before construction commences on this project.</p>	<p>13.4</p>	<p>An offsets strategy is being developed in consultation with regulatory government agencies. The EIS sets out the approach and concepts to be included in offset strategy.</p> <p>Offset area identification is being undertaken based on a multi criteria approach, including vegetation and habitat types, value and conservation benefit, contribution to broader environmental outcomes (corridors and connectivity) as well as land tenure, other uses and long term management. Other actions and offsets (e.g. Transgrid sub station) will be considered where known.</p>
<p>Individual T</p>		
<p>Object to the proposal.</p>	<p>No change to the EIS</p>	<p>It is noted that the preferred project has not received unanimous support. The environmental impact of the preferred project has been assessed as low to moderate.</p>
<p>Do not believe there is enough water in Tantangara Dam to justify this project and concerned about loss of water by evaporations once it is transmitted to Googong Dam</p>	<p>1.3 and 5.3.5</p>	<p>Tantangara Res has an active capacity of about 240 GL with a minimum flow sequence of approximately 30GL per annum. The historical records show that even under the driest conditions Tantangara will be able to release the approximately 11GL per annum projected to be available for ACTEW abstraction at Angle Crossing.</p> <p>Evaporative losses managed through timing of flow releases, with water stored in Tantangara (higher elevation, lower evaporative losses) until it is required by the ACT. Losses could be in the range of 16-42%.</p> <p>Evaporation from Googong will not be significantly changed by delivery of Tantangara releases.</p>
<p>Concerned about the impact on London Bridge - there are no images on how the raised waters will affect the vistas of the arch with pools beneath it.</p>	<p>14.3.2</p>	<p>Whilst there is no image of how London Bridge will look during water transfer, the impacts on London Bridge have been assessed and are discussed in Chapter 14. This assessment concludes that increased water levels based on the preferred project's 100 ML/day capacity will probably not significantly alter the channel conditions at London Bridge.</p>
<p>40m clearance width will have an impact of the landscape scenery and the noise from the airvents will have a major impact on the tranquility of the valley.</p>	<p>Chapters 18 and 20 20.4.2</p>	<p>Construction of the preferred project has the potential to generate visual impacts, primarily due to the proximity and presence of sensitive nature recreation receptors and changes in the landscape within the Murrumbidgee</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
		<p>River Corridor. However, impacts will be temporary and limited to the construction period. Visual landscape management measures will be incorporated into the construction environmental management plan. Landscaping, vegetation rehabilitation, replacement planting and encouragement of natural regeneration will be undertaken along the pipeline corridor in accordance with an approved Landscape and Rehabilitation plan.</p> <p>In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S 20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any significant levels of noise associated with the operation of the scour valves. Location of air and scour valves in shown at figure 3.9</p>
<p>The residents of Burra Valley, NSW should not be forced to carry the burden of impacts on their environment and lifestyle from this pipeline while the residents of ACT refuse a water recycling system and do not face the reality of climate change.</p> <p>Individual A</p>	7.2.13	<p>Water security projects are being delivered alongside a suite of demand management schemes encouraging efficient water use and increased use of non-potable water as an alternative to the potable supply.</p>
<p>No justification for this pipeline given the ACT has already approved the enlargement of Cotter Dam. Impacts of evaporation from Googong and existing pumping capacity from Stromlo to Googong are also arguments against this proposal</p>	7.2.2	<p>The provision of an additional abstraction point on the Murrumbidgee River abstraction was a key recommendation of investigations into the future of the ACT water supply. The existing Cotter to Googong water transfer point has limitations which the preferred project is overcome.</p>
<p>Flows of the Murrumbidgee is declining and priority should be given to food production downstream.</p>	9.4.1	<p>Additional discussion has been factored into Section 9.4.1 in response to queries from the community about the net impact of the preferred project on water flow downstream of the ACT. Overall, the Murrumbidgee to Googong Water Transfer will result in a 1% change in average flows leaving the ACT (with the average flow leaving ACT being 509 GL/annum).</p>
<p>Director-General's requirement to have regard to downstream users of the Murrumbidgee River flows have not been met as no one in the Murray Darling Basin food bowl knew of this project.</p>	No change to the EIS	<p>The draft EIS/EA exhibition was a public process advertised in The Canberra Times and promoted on both the ACTPLA and NSW Department of Planning websites.</p>
<p>I oppose the proposed route as there are viable alternative routes. There is already existing infrastructure that could be enhanced to provide additional flows to Googong Dam. Alternate route options have not been described in sufficient detail to meet the scoping document requirements.</p>	7.3	<p>In response to submissions received during public exhibition, additional information on the assessment of the alternate pipeline routes has been included in Chapter 7 including their advantages and disadvantages in terms of triple bottom line aspects.</p>
<p>There is insufficient recognition and description of the impacts of air vents in terms of noise and visual impact</p>	20.4.2	<p>In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
		<p>the EIS at S 20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any significant levels of noise associated with the operation of the scour valves. Location of air and scour valves in shown at figure 3.9</p>
<p>Insufficient detail of social impact of increased numbers of people and traffic during construction.</p>	<p>25.3</p>	<p>Traffic studies (see chapter 25 of the EIS) undertaken for the preferred project have developed measures to maintain traffic safety and convenience in the preferred project area. The social impact assessment has further identified the most vulnerable local groups and occasions (related to local equine riders and local social events) for which further consideration will be made in traffic management plans. Similarly, the social impact assessment has anticipated that the operation of a construction workforce in the preferred project area for a period of less than 1.5 years is unlikely to interact with the local community such that it generates significant or enduring social impact.</p>
<p>There is no mention of the heritage value of the old growth poplars along Williamsdale Road.</p>	<p>15.2.3</p>	<p>The preferred project will not involve direct impact to the poplar trees at the eastern (Burra) end of Williamsdale Road. The erection of temporary fencing around the trees for the duration of construction works will be included as a specific action in the Construction Environmental Management Plan. The heritage value of the poplars is noted in Chapter 15 of the EIS.</p>
<p>Potential impacts of the pipeline on shallow bores and ground water have not been explored.</p>	<p>16.2.3</p>	<p>Assessment of bores and groundwater is discussed in 16.2.3. This section confirms that the preferred project is unlikely to have an impact on the groundwater bearing aquifer/s which are at a depth well below the likely maximum trench excavation depth.</p>
<p>The EIS document does not meet the requirements of NSW and ACT Legislation to allow ease of comment and the timeframe to comment was too short.</p>	<p>4.4 and Appendix S.</p>	<p>The draft EIS/EA public exhibition met the statutory requirements for a 30 day period as required by both ACT and NSW regulators. This period was then extended for an additional two weeks by the two Governments. In addition to this statutory process ACTEW has provided the community with a range of opportunities to comment on the preferred project during the development of the draft EIS/EA as detailed in Chapter 4.</p>
<p>The Social assessment does not reflect the fact that the pipeline will cross both rural and rural residential land. Consultation is developing this assessment has been undertaken on the basis of a 'broader user-group scale' and doesn't address individual impacts. Key stakeholders have been identified in the report, yet the Stakeholder consultation list indicates that no residents affected by the pipeline were consulted in Burra.</p>	<p>23.4</p>	<p>The social impact assessment has been revised to indicate that the primary preferred project area includes both rural and rural residential lands.</p>
<p>The Social assessment is incomplete as it refers to some details which are either not currently known or finalised.</p>	<p>Appendix O</p>	<p>The social impact assessment considers all known and reasonably anticipated aspects of the preferred project's construction and operation, as is common practice in for development proposals. The limitations (discussed in section</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
		<p>1.5 of the social impact assessment) acknowledges that some impacts depend on final construction methods (eg choice of plant and equipment) where are determined during the detailed construction programming. This is not expected to impact on the results of the social impact assessment.</p>
<p>The Social assessment has not taken into account the noise associated with the air vents as the number and location of these were not known at the time the report was prepared, yet these will have a significant impact on the community.</p>	20.4.2	<p>In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S.20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any significant levels of noise associated with the operation of the scour valves. Location of air and scour valves in shown at figure 3.9</p>
<p>The Social assessment identifies Williamsdale, Burra and Angle Crossing as areas of primary impact, yet devotes only one or two paragraphs to the impacts on Williamsdale and Burra.</p>	23.3	<p>The social and economic fabric of Williamsdale/Burra is no doubt linked to that of the ACT where water security is fundamental to the economic and social future. The social impact assessment notes that the majority of impacts to Burra/Williamsdale will be minimised through good construction management and that residual impacts are anticipated to be minor and temporary. The revised design further reduces these impacts in Burra, as well as positively responding to local preferences for outlet structure locations. The discussion of Williamsdale/Burra reflects the limited impacts on these areas.</p>
<p>The Social assessment understates the impact of the following aspects on the residents:</p> <ul style="list-style-type: none"> - noise and impact on health - inadequate compensation - visual impacts during and after construction, including loss of trees - disturbance during construction - traffic - dust - vibration and the impact on buildings 	17.3.3, 23.3, Appendix O	<p>Impacts associated with the creation of a permanent easement have been discussed in the land use chapter (chapter 17 of the EA/Draft EIS as well as section 5.1.4 of the social impact assessment). Impacts to land holders have also been considered in relation to amenity impacts of dust, noise, vibration, access and privacy and lifestyle impacts during the construction phase. ACTEW's offer of compensation to affected land-holders has been determined by valuation methodology in accordance with the Land Acquisition (Just Terms Compensation) Act 1991. This process is currently ongoing, and not appropriate for discussions within an environmental approval document.</p>
<p>The Social assessment does not consider the health impacts of construction issues such as early starts on sleep.</p>	6.11	<p>Construction working hours will be limited to 7am to 6pm on weekdays and 8am to 1pm on Saturdays with no work on Sundays is intended to protect sleep hours.</p>
<p>Additional compensation is not being provided to properties that will have air valves or scour vents, or for those losing trees. There is also no consideration of the on-going impacts of maintenance in relation to compensation</p>	4.2.4; 20.4.2	<p>ACTEW's offer of compensation to affected land-holders has been determined by valuation methodology in accordance with the Land Acquisition (Just Terms Compensation) Act 1991. The ACTEW Landholder Management Plan provides that landholders are afforded the opportunity to obtain an independent valuation. ACTEW has also made a \$5,000 contribution towards valuation and solicitors fees. ACTEW's continued liaison with landholders is outlined in Chapter 4. The noise associated with operation of air valves or</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
		<p>scour vents is discussed in Chapter 20 and are anticipated to have minimal impact.</p>
<p>Social risks exist as a result of the proponent having one-on-one discussions with landholders, generating a 'divide and conquer' suspicion. It is important to place greater weight on the comments of those directly impacted by the pipeline.</p>	<p>Chapter 28</p>	<p>ACTEW is maintaining open communication channels to provide the community with the information they need and the opportunity to comment on the preferred project. Individual consultation is available to all community members to allow them to communicate with ACTEW in a way that best suits their lifestyle. ACTEW will endeavour to make public the results of any one-on-one consultations in a way which protects individual's privacy whilst keeping the rest of the community informed.</p>
<p>Do not agree that Burra/Williamsdale residents will benefit from greater water security in Canberra as stated in the social impact assessment. The negative impacts of this project on these communities have been considerably played down.</p>	<p>23.3</p>	<p>The social and economic fabric of Williamsdale/Burra is no doubt linked to that of the ACT where water security is fundamental to the economic and social future. The social impact assessment notes that the majority of impacts to Burra/Williamsdale will be minimised through good construction management and that residual impacts are anticipated to be minor and temporary. The revised design further reduces these impacts in Burra, as well as positively responding to local preferences for outlet structure locations.</p>
<p>Individual U</p> <p>Supportive of the alternative upstream discharge option due to the following benefits:</p> <ul style="list-style-type: none"> - avoid impact on properties along Macdiarmid and Lagoon Road - avoid a rocky section of ground in the Lagoon area negating the need for blasting. - possible benefits to degraded section of Burra Creek - avoid the need for the pipeline to cross Burra Road and the associated traffic hazards - possible cost savings to ACTEW that could then be returned to the community in the form of road improvements and environmental projects. 	<p>Chapter 6 ; 23.3.2</p>	<p>ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palarang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.</p>
<p>Individual V</p> <p>Do not support the current route outlined in the draft EIS. Recommend the early discharge option to avoid properties in the Macdiarmid Road area, provide benefits to degraded area of the creek and allow for cost savings for ACTEW which could be reinvested into community projects.</p>	<p>Chapter 6 ; 23.3.2</p>	<p>ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palarang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.</p>
<p>Concerned about the noise from air vents located on the property</p>	<p>20.4.2</p>	<p>In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S 20.4.2. The frequency of noise emissions from the air valves is</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
		considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any significant levels of noise associated with the operation of the scour valves. Location of air and scour valves are shown at figure 3.9
<p>If the mini-hydro is built at the discharge point the visual impact of this will still be easier to mitigate than the many extra air vents the existing route requires.</p> <p>Various - letter to Kristina Keneally, MLA</p> <p>Understand the desire to seek to secure the water supply, however do not consider this project to be environmentally, socially or economically sensible, particularly given the following circumstances:</p> <ul style="list-style-type: none"> - Approved enlargement of Cotter Dam - Infrastructure already exists to transfer water between the Cotter and Goongong Dams - Tangangara Transfer option seems more appropriate and it is acknowledged that these water releases can be pumped to Mount Stromlo treatment plant via the Cotter Pump Station - EIS states Tangangara Transfer project is relatively low cost, - project has already been endorsed by the ACT Government. 	18.2.1	ACTEW has adopted the alternate outlet location in response to the community support. The visual impact of the mini-hydro is discussed in Chapter 18, which details the limited views from a range of locations.
<p>Recommend deferring the decision on the grounds that alternative options under the Tangangara Transfer project should be explored first. There has been no complete study of alternative ways of accessing that water.</p>	7.2.2	The provision of an additional abstraction point on the Murrumbidgee River abstraction was a key recommendation of investigations into the future of the ACT water supply. The existing Cotter to Goongong water transfer point has limitations which the preferred project is overcome.
<p>Ask the Minister to consider that the choice of the preferred route has been selected because of the high dollar costs of other options, not the environmental and social costs. The dollar cost of the proposed route is lower as it is shorter as it is discharging into Burra Creek without a credible independent environmental assessment of the impact.</p>	1.3 and 5.3.5	Tangangara Water Transfer Project is a separate but closely related project on which the Murrumbidgee to Goongong Project does not rely. Several alternative options to transporting the water from Tangangara Res were explored by ACTEW in the Future Water Security Options which is summarised in Chapter 5 of the draft EIS/EA.
<p>Recommend that the Government sponsor an independent assessment of the environmental consequences of the proposed discharge into Burra Creek, prior to any decision.</p>	Chapter 7	The Minister will take all factors into account when making their decision on the preferred project. A rigorous analysis of economic, environmental and social aspects was carried out when deciding the pipeline route as described in Chapter 7. ACTEW will not discharge water into Burra Creek if the analysis showed unacceptable environmental impact.
<p>If project does proceed there should be strict conditions of approval in particular in relation to ongoing monitoring both during construction and operation.</p>	Chapter 2	The EIS has been undertaken, according to the extensive legal requirements described in Chapter 2 by independent experts.
<p>Suggested condition of approval that a Committee comprising Palerang Council and Burra and Williamsdale community members to oversee the pipeline works during construction and during the entire period of its</p>	Chapter 2	ACTEW expects any approvals to contain conditions, in accordance with the extensive legal requirements described in Chapter 2.
	28.1	Community input to rehabilitation and monitoring will be considered as appropriate

Comment	Relevant Section modified in the EIS	ACTEW Response
operation, including noise, pollution, rehabilitation and revegetation works		
Suggested condition of approval that ACTEW provide a greenway, a continuous path for pedestrians, horse riders and cyclists along the full length of Williamdale Road and the full length of Burra Creek through the Nature Reserve.	No change to the EIS	Not proposed as part of this preferred project
Suggested condition of approval that ACTEW will rehabilitate the Burra Creek along its full length from the outlet point and through the Nature Reserve to reinstate the chain-of-ponds habitats.	27.3.4	ACTEW is investigating opportunities to include the community in rehabilitation activities for the section of Burra Creek between the outlet structure and the Googong dam foreshores.
Molonglo Catchment Group Inc		
Endorses the submission by Upper Murrumbidgee Catchment Coordinating Committee, ACT Waterwatch and Queanbeyan Landcare.	No change to the EIS	Responses to the issues raised in these submissions have been included in the appropriate section of this table.
Is concerned about the apparent imbalance between water security and compromised environmental outcomes. Believes the proposed mitigation measures are inadequate.	Chapter 27	Mitigation measures have been further strengthened in response to issues raised during public exhibition. These are detailed in Chapter 27.
If the project proceeds, recommends that ACTEW should support a community-based organisation (such as MCG or Burra Landcare) to supplement any contract monitoring of water quality and geomorphology in order to present a trusted community-orientated view, to assist community acceptance of the project.	27.4.1	Stakeholder engagement with the monitoring programme will be undertaken to ensure relevant groups and individuals have the opportunity to become involved in both the monitoring of both the Murrumbidgee River and Burra Creek and analysis of the incoming data derived from the monitoring programme.
Concerned about the impact of greatly increased flows on the ecology and geomorphology of Burra Creek.	Chapters 10 to 12	Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed..
Concerned about the potential degradation of the biodiversity through the spread of noxious and environmental weeds as a result of pipeline construction.	13.6	Appropriate management plans will be implemented as described in EIS/PPR
In addition to endorsing the recommendations in section 6, Appendix H, recommends that - pre-construction weed distribution map recommended in Appendix H be developed to identify problem areas, and supporting Palerang Council, undertake a pre-construction weed control program in areas	13.6	Comment agreed and noted. The weed management program will be documented in the Flora and Fauna Management Plan and approved by regulatory agencies.

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>likely to post potential weed dispersal problems; - support be provided to Palerang Council and Burra Landcare Group, other landholder organisations and interest groups to train landholders in the appropriate identification and control of noxious weeds so that monitoring can extend beyond the suggested two year period.</p>		
<p>Individual W Believe the risks associated with the project are much greater than outlined in the EA, particularly with respect to the impact on Burra Creek.</p>	<p>Chapters 10 to 12</p>	<p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed..</p>
<p>The heritage assessment fails to recognise the landscape as a whole, rather it treats Burra Creek and London Bridge as compartmentalised matters. It is the whole landscape that creates the spiritual significance of the place, and the Cultural Heritage Assessment fails to capture the spiritual significance of Burra Creek/London Bridge to the Ngunnawal people.</p>	<p>14.3.2</p>	<p>The spiritual significance of the Burra Creek and London Bridge limestone formations was recognised in the early stages of the preferred project and clearly identified during on-going consultation with registered Aboriginal stakeholders. Whilst the high degree of Aboriginal cultural significance of the London Bridge formations is identified in the cultural heritage assessment report (provided as Appendix I of the Draft EIS/EA), the supporting information for this evaluation has not been presented to any great degree in the Draft EIS/AE. This approach was ratified by the registered Aboriginal stakeholders and the written statements provided by those stakeholders have been relied upon. References to sources which provided extensive detail regarding the Aboriginal significance of London Bridge and its landscape can be found in the References section. An acknowledgement of the importance of the whole landscape in the appreciation of Aboriginal cultural values can be found in the statements made by Aboriginal stakeholder and provided in Appendix 1 of the cultural heritage assessment report (provided as Appendix I of the Draft EIS/EA). Whilst this was an integral component of the cultural value assessments/statements provided by Aboriginal stakeholders, the overall assessment for the proposed development, must by necessity, be focused on the anticipated area of direct impact. The compartmentalisation of various sections of that assessment area is an unavoidable consequence of the assessment methodology.</p>
<p>The Cultural Heritage Assessment also makes no attempt to discuss the potential implications of extra water flows in Burra Creek. The alluvial creek terraces potentially contain significant cultural material, which is at</p>	<p>14.3.2</p>	<p>The potential impact of development related additional water flows in Burra Creek on potentially occurring archaeological material within the alluvial terrace deposits which border the creek corridor is specifically addressed in</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
risk if further erosion results. Substantive subsurface testing is required to give an indication of the extent of cultural material potentially present.		section 15.1.1 of the cultural heritage assessment report provided as Appendix I of the Draft EIS/EA. Drawing upon the results of a fluvial analysis, it was concluded that the preferred project will not increase the erosion hazard to these bordering deposits.
Concerned about the impact of additional water flows in Burra Creek will have on the environment in terms of erosion and introduced vegetation from the water.	Chapters 10 to 12	Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed..
Does not believe this project, particularly the extra flows in Burra Creek, is in the best interests of the environment nor the Ngunnawal people. Other more environmentally responsible approaches should be taken to secure the water supply.	Chapter 27	Project is in keeping with ACTEW priorities and will be delivered alongside a range of management and mitigation strategies and monitoring to minimise adverse impacts on the environment, including local properties, residents and their stock. Details on the Heritage assessment of the preferred project can be found at Chapter 14 and detailed discussion on the impacts on Burra Creek is in Chapters 10, 11 and 12. The environmental impact of the preferred project has been assessed as low to moderate. Summary of the mitigation measures can be found at Chapter 27.
Member Palerang Heritage Advisory Committee		
London Bridge Natural Arch is a listed heritage site, and must be fully protected now and into the future. Nothing must be done to put the site under any threat. Attached papers from Australian Heritage Database and paper by Stephen Skinner	14.3.2	The potential for impact to the London Bridge formations, both in regard to their cultural heritage values and geomorphological values has been extensively covered by the specialist reports provided as appendices D, E and I of the Draft EIS/EA. It has been concluded that the increases in creek flow that will result from the preferred project will not pose a threat to the formations.
Braidwood Greens		
Concerned about the impact on the in-stream ecology of Burra Creek.	12.3	Chapter 12 of the EIS has been expanded to cover impacts on Burra Ck ecology in more detail. Recommendations to mitigate impact are provided and an extensive monitoring scheme is proposed.
The financial costs of this project suggest that water use is poorly managed in the first place. Suggest that the ACT Government increase water restrictions, provide water tank rebates and raise awareness on water use issues in the ACT community.	7.2.13	Demand management is one component of future water security and is provided in several formats. Changes to ACT government policy are outside the scope of consideration for this EIS.
Individual X		

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>Opposed to the use of Burra Creek within the project to reduce the projects over-all costs.</p>	<p>Chapter 7</p>	<p>The Minister will take all factors into account when making their decision on the preferred project. A rigorous analysis of economic, environmental and social aspects was carried out when deciding the pipeline route as described in Chapter 7. ACTEW will not discharge water into Burra Creek if the analysis showed unacceptable environmental impact.</p>
<p>The EIS is a flawed document embracing bias and compromised by conflicts of interest. With the ACT Government being the senior joint venture partner, it could be perceived to have conflicts of interest in assessing the merits or otherwise of the EIS. The law of due process has not been upheld.</p>	<p>No change to EIS</p>	<p>The EIS was prepared by qualified persons and is informed by a range of independent assessments completed by relevant experts to meet statutory requirements. The Planning and Development Act establishes ACTPLA as an authority independent of the ACT Government with the responsibility to review and assess all planning documentation, including the M2G EIS and make informed professional judgements in respect to the Authority's statutory functions.</p>
<p>Support for Dr Stephen Skinnners's paper listing examples of weaknesses in the technical reports on Burra Creek and highlighting the dangers of 100ML per day to Burra Creek.</p>	<p>Chapter 10 to 12</p>	<p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed..</p>
<p>ACTEW's report 'Water Security for the ACT and Region' suggests that Burra Creek is only suitable for pumping rates of less than 60ML per day. The EIS bases its geomorphology impacts on assumed flows which are substantially lower than the flows for which ACTEW is seeking approval. This is misleading and invalidates ACTEW's conclusions about likely impacts on the creek.</p>	<p>6.1</p>	<p>The 2007 report was based on 60 ML over an 8 hour period which is a higher flow rate than the flow used in the EIS of 100ML over a 24 hour period, as described in s6.1</p>
<p>Raising of Googong Dams spillway coupled with the proposed inundation of Burra Creek will have a detrimental impact on the Aboriginal cultural interests of Burra Creek, London Bridge and its environs, largely as a result of the detrimental environmental impacts.</p>	<p>14.3.2</p>	<p>The impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. That is, the general existing form of Burra Creek will remain largely unchanged in response to the transfer flows. However, this assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Recommendations to mitigate the identified impacts are provided.</p>
<p>Individual ID Oppose the current route due to social and environment impacts and loss of amenity for the community. Alternate routes have not been</p>	<p>7.3</p>	<p>In response to submissions received during public exhibition, additional information on the assessment of the alternate pipeline routes has been</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
described in sufficient detail to enable an understanding of the reasons for preferring certain options and courses of action and rejecting them, other than on the basis of dollars.		included in Chapter 7 including their advantages and disadvantages in terms of triple bottom line aspects.
EAVEIS analysis of noise and vibration does not meet the Scoping document and NSW government requirements. The EAVEIS lacks detail on exact location of air and scour vents which is of considerable concern to the community as these vents will create considerable noise disturbance and permanent loss of amenity. No location for blasting areas during construction has been provided and the community is concerned about impact of these.	20.4.2; Chapter 3	In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S 20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any significant levels of noise associated with the operation of the scour valves. Location of air and scour valves in shown at figure 3.9
Based on the lack of route analysis and detail on operational noise from the vents, this EAVEIS is incomplete. Ask that the proponent be required to complete an adequate Assessment.	20.4.2; Chapter 3	In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S 20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any significant levels of noise associated with the operation of the scour valves. Location of air and scour valves are shown at figure 3.9
Please note that residents have been asked to agree to compensation without information on exact location of vents and without proper understanding of the associated noise impacts.	23.3, 17.3.3, Appendix O	Impacts associated with the creation of a permanent easement have been discussed in the land use chapter (Chapter 17 of the EIS as well as Section 17.3.3 of the social impact assessment). Impacts to land holders have also been considered in relation to amenity impacts of dust, noise, vibration, access and privacy and lifestyle impacts during the construction phase. ACTEW's offer of compensation to affected land-holders has been determined by valuation methodology in accordance with the Land Acquisition (Just Terms Compensation) Act 1991. This process is currently ongoing, and not appropriate for discussions within an environmental approval document.
Suggested condition of approval that a Committee comprising Palerang Council and Burra and Williamsdale community members to oversee the pipeline works during construction and during the entire period of its operation, including noise, pollution, rehabilitation and revegetation works	28.1	Community input to rehabilitation and monitoring will be considered as appropriate
Suggested condition of approval that ACTEW provide a greenway, a continuous path for pedestrians, horse riders and cyclists along the full length of Williamsdale Road and the full length of Burra Creek through the Nature Reserve.		Not proposed as part of this preferred project
Suggested condition of approval that ACTEW will rehabilitate the Burra Creek along its full length from the outlet point and through the Nature Reserve to reinstate the chain-of-ponds habitats.	27.3.4	ACTEW is investigating opportunities to include the community in rehabilitation activities for the section of Burra Creek between the outlet structure and the Googong dam foreshores.
National Capital Authority		

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>The NCA has particular interest in the following:</p> <ul style="list-style-type: none"> - Monaro Highway which is a Designated Area under the National Capital Plan and as such requires approval from NCA for all works in this area. - Land within 200m of the centreline of the Highway which is subject to special requirements for Approach Routes - The Murrumbidgee River Corridor which is covered by principles and policies and special requirements in the National Capital Plan. 	2.4.1	The areas of interest to the National Capital Authority are noted and discussed in Chapter 2.
<p>Environment Institute of Australia and New Zealand</p> <p>Notes that the environmental assessment did not include a Certified Environmental Practitioner on the core study team and there is no indication that the key commitments offered for environmental mitigation and management will involve a Certified Environmental Practitioner.</p>	Chapter 31	Environmental experts with substantial experience were engaged by ACTEW to undertake specialist studies assessments and prepare the EIS. There is no legal requirement to have input from Certified Environmental Practitioner. Qualifications and experience of the core members of the assessment team are presented in Chapter 31, in addition to details on the specialists firms engaged to complete studies informing the EIS.
<p>Recommends that a Certified Environmental Practitioner be included in future environmental mitigation, management and monitoring of the project.</p>	Chapter 31	No legal requirement to have input from Certified Environmental Practitioner. Relevant environmental experts with substantial experience employed by ACTEW to undertake assessments. Qualifications and experience of the core members of the assessment team are presented in Chapter 31.
<p>M2G Community' - various signatories</p> <p>Oppose the current route due to social and environment impacts and loss of amenity for the community. Alternative routes have not been described in sufficient detail to enable an understanding of the reasons for preferring certain options and courses of action and rejecting them, other than on the basis of dollars.</p>	7.3	In response to submissions received during public exhibition, additional information on the assessment of the alternate pipeline routes has been included in Chapter 7 including their advantages and disadvantages in terms of triple bottom line aspects.
<p>EA/EIS analysis of noise and vibration does not meet the Scoping document and NSW government requirements. The EA/EIS lacks detail on exact location of air and scour vents which is of considerable concern to the community as these vents will create considerable noise disturbance and permanent loss of amenity. No location for blasting areas during construction has been provided and the community is concerned about impact of these.</p>	20.4.2; Chapter 3	In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S.20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any significant levels of noise associated with the operation of the scour valves. Location of air and scour valves in shown at figure 3.9 within information on blasting locations found at Section 20.4.1.
<p>Based on the lack of route analysis and detail on operational noise from the vents, this EA/EIS is incomplete. Ask that the proponent be required to complete an adequate Assessment.</p>	20.4.2	In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S.20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>Please note that residents have been asked to agree to compensation without information on exact location of vents and without proper understanding of the associated noise impacts.</p>	<p>23.3, 17.3.3, Appendix O</p>	<p>significant levels of noise associated with the operation of the scour valves. Location of air and scour valves are shown at figure 3.9</p> <p>Impacts associated with the creation of a permanent easement have been discussed in the land use chapter (Chapter 17 of the EIS as well as Section 17.3.3 of the social impact assessment). Impacts to land holders have also been considered in relation to amenity impacts of dust, noise, vibration, access and privacy and lifestyle impacts during the construction phase. ACTEW's offer of compensation to affected land-holders has been determined by valuation methodology in accordance with the Land Acquisition (Just Terms Compensation) Act 1991. This process is currently ongoing, and not appropriate for discussions within an environmental approval document.</p>
<p>ACT National Trust</p> <p>The implications concerning the water transfer through the Karst of London Bridge has been well covered in Appendix E of the draft EIS.</p> <p>Recommend (if it has not already been investigated) modelling of normal open water flow conditions (taking into account the existing drought conditions) along Burra Creek and then the effect of the periodic superimposed outflow conditions of 100Ml/day.</p> <p>Recommend installation of a stream flow gauge, preferably site above the confluence with Queanbeyan River, to monitor the existence of any water loss along Burra Creek</p> <p>Suggest raising the pedestrian access to London Bridge Homestead via the walkway to above the computer high river stage level.</p>	<p>No change to the EIS</p> <p>Chapter 27</p> <p>23.3.2</p>	<p>The comment is acknowledged</p> <p>This has been addressed in chapters 6 and 10 which describe flow conditions in Burra Creek</p> <p>This will be addressed in the monitoring programme described in chapter 27</p> <p>The pedestrian access will be raised. Vehicle crossings across the creek will be maintained to the requirements of ACT rangers. These are part of community benefits described in 23.3.2</p>
<p>Layos Pty Limited</p> <p>Submit that the route should follow Williamsdale Road to the Crossing at the intersection with Burra Road and release water at that point to flow down the Burra Creek towards Googong Dam so that life returns to the Creek and the eco systems thrive once more.</p>	<p>Chapter 6 ; 23.3.2</p>	<p>ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palerang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.</p>
<p>Individual Y</p> <p>Submit that the route should follow Williamsdale Road to the Crossing at the intersection with Burra Road and release water at that point to flow down the Burra Creek towards Googong Dam so that life returns to the Creek and the eco systems thrive once more.</p>	<p>Chapter 6 ; 23.3.2</p>	<p>ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Palerang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
		location on potential community benefits will need to be addressed within this process.
Submit that the route should follow Williamsdale Road to the Crossing at the intersection with Burra Road and release water at that point to flow down the Burra Creek towards Googong Dam so that life returns to the Creek and the eco systems thrive once more.	Chapter 6 ; 23.3.2	ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Paterang Council and community members to identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.
Early discharge option will support the work we have already undertaken to replant native vegetation along the Creek.	Chapter 6	The outlet option has been assumed for the EIS
Early discharge option will support the work we have already undertaken to replant native vegetation along the Creek.	Chapter 6	The outlet option has been assumed for the EIS
The pipeline crossing Church Paddock will leave dreadful scarring and provide serious noise pollution.	20.4.2, Figure 3.9	In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S 20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any significant levels of noise associated with the operation of the scour valves. Location of air and scour valves are shown at figure 3.9. Pipeline no longer crosses this property due to adoption of the alternate outlet location.
The pipeline crossing Church Paddock our property will generate serious noise pollution from the location of air valves	20.4.2, Figure 3.9	In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S 20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any significant levels of noise associated with the operation of the scour valves. Location of air and scour valves are shown at figure 3.9. Pipeline no longer crosses this property due to adoption of the alternate outlet location.
Historical photos and reports about the flows that Burra Creek has sustained over the years is indication enough of the capacity it has to carry water from the crossing at Williamsdale Road. The benefits to the environment with regular water flows are incalculable and far outweigh contradictory arguments.	No change to the EIS	The comment is acknowledged
Individual Y		
Positively affected if the pipeline follows the alternative discharge option as this will aid the riparian work we have been doing in that area and provide habitat for native fauna and flora. We have evidence of	23.3.2	ACTEW has noted the responses in favour of an upstream outlet and has included the findings of investigations into the upstream outlet location in the EIS. A process for working with Paterang Council and community members to

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>Platypus in the creek up until 2007 and this may attract them to return. if the pipeline follows proposed route as this will leave dreadful scarring, obliterate native flora and fauna habitat, have visual impact and cause noise pollution from the airvents located in the area.</p>		<p>identify potential community benefits resulting from the preferred project is described in section 23.3.2 of the EIS. The effect of the upstream outlet location on potential community benefits will need to be addressed within this process.</p>
<p>Individual Z</p> <p>The EAVEIS fails to convince the reader that the proposed flows in Burra Creek will not severely damage the physical form, habitat values and hence the flora and fauna in the creek.</p>	<p>Chapters 10 to 12</p>	<p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed..</p>
<p>I strongly object to this water transfer project.</p>	<p>No change to the EIS</p>	<p>It is noted that the preferred project has not received unanimous support. The environmental impact of the preferred project has been assessed as low to moderate.</p>
<p>Study has not properly address the detrimental effects that inundation by fast-flowing and turbid river water will have on the chain-of-ponds system.</p>	<p>Chapters 10-12</p>	<p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed..</p>
<p>Financial considerations seems to have over-ridden ECOLOGICAL protection, report is not genuinely independent or scientifically thorough.</p>	<p>6.13 and Chapter 31</p>	<p>While ACTEW funded all the necessary assessments, experts were selected based on their areas of specialist expertise and have provided independent advice. An additional table has been inserted into Chapter 31 which provides the qualifications of the various specialists that undertook the assessments for the EIS. The EIS document was produced based on these specialist assessments by a team with recognised qualifications and experience in environmental assessment. ACTEW's commitment to incorporating sustainability into the preferred project, including how the Precautionary Principle, worst case scenarios and triple bottom line assessment were adopted is discussed in Section 6.13.</p>
<p>ACT Government should consider options such as:</p>	<p>7.2.13</p>	<p>Demand Management is one component of future water security and is</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
<ul style="list-style-type: none"> - restrictions on future growth of Canberra - improved water demand management - higher costs of water - improved water recycling on site. 		<p>provided in several formats. Changes to ACT government policy are outside the scope of consideration for this EIS.</p>
<p>ACTEW reluctance to accept the earlier report "Water Security for the ACT and Region - Recommendations to the ACT Government - July 2007" which recommended a cap of 60ML flow per day for Burra Creek indicates the environmental effects of the proposal are not being taken seriously.</p>	6.1	<p>The 2007 report was based on 60 ML over an 8 hour period which is a higher flow rate than the flow used in the EIS of 100ML over a 24 hour period, as described in 6.1</p>
<p>The natural heritage values of the Burra Creek area would be severely compromised by the intrusion of both the flooding and noise pollution caused by the pipeline vents.</p>	Chapters 10-12	<p>Chapters 10, 11 and 12 of the EIS have been updated. The assessments conclude that the impact of the proposed transfer flows on the geomorphology for the majority of Burra Creek will be negligible to low. The existing form of Burra Creek will remain largely unchanged in response to the transfer flows. This assessment has identified key, localised sites, where a moderate to high degree of adjustment is expected. This is primarily associated with adjustments in Type 4 riffle zones. Impacts on pools, riparian vegetation, sediment and aquatic ecology in Burra creek are also dealt with in more detail. Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed..</p>
<p>Individual AA</p>		
<p>Support the proposal as the least worst alternative in terms of environmental impact.</p>	No change to the EIS	<p>ACTEW appreciates all submissions made on the draft EIS/EA and will continue to strive for community acceptance of the preferred project through open and efficient channels of communication and dedication to minimising environmental harm.</p>
<p>Believe that ACTEW can do more with regard to the environmental health of the Murrumbidgee River</p>	28.1	<p>ACTEW have made a commitment to undertake a regular review of geomorphological monitoring results for any trends toward significant impacts in Murrumbidgee River. The monitoring and adaptive management plan will include actions required to address any identified trends in a timely manner.</p>
<p>Believe the EIS is deficient in not summarising the environmental flow rules applying to the upper Murrumbidgee as the source of the water transfer.</p>	6.10.2	<p>Information on environmental flows of the Upper Murrumbidgee are provided at Section 6.10.2</p>
<p>It is poor environmental practice to divide a project into smaller components for assessment and approval, such as the case with the Tantangara Transfer. The Tantangara Transfer could either enhance the environmental outcomes of the project if implemented well, or worsen impacts if undertaken inappropriately. Ideally the Tantangara option should be considered in a revised M2G EIS</p>	5.3.5	<p>The administrative and commercial frameworks for the Tantangara Transfer project are not confirmed at this stage. Although part of ACTEW Water Security Major Projects, it not appropriate or timely to consider it as part of the M2G Project for the purposes of this EIS. The relationship between the two projects is outlined at 5.3.5</p>
<p>Pumping should be restricted to seasons of high water flow, with water</p>	6.9, Chapter 27	<p>The current proposal is to commence operation using the rules outlined in</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>levels supplemented by transfers from Tantangara to minimize impacts on the environment and maximise the ECOLOGICAL benefits of the Tantangara transfer</p>		<p>Section 6.9 of the EIS, which are aimed at protecting the downstream environmental flows in the Murrumbidgee River and allowing spare reservoir volume for natural inflows to fill Googong reservoir. These operating rules are based on ACTEW experience at the Cotter pumping station and represent an informed approach to setting a baseline.</p> <p>Under these rules, pumping will only occur when there is sufficient water flowing in the river. In accordance with the proposed adaptive management regime described in Chapter 27, the rules will be continuously under review and will be amended, if necessary, based on input from the monitoring programme.</p>
<p>Would like to see a substantial commitment by ACTEW for a consistent riparian restoration program along the Murrumbidgee, possibly with payments linked to the volume of water transferred. A riparian restoration program along the Murrumbidgee River should enhance the conservation of water and biodiversity through agreements with landholders, stock exclusion fencing, off river stock watering points, weed control and replanting indigenous vegetation. ACTEW should consider partnering with appropriate organisations in the upper Murrumbidgee River catchment to undertake this program.</p>	27.3.4	<p>Majority of degraded riparian zones are the result of an extended period of poor land management. The impacts associated with this are considered outside the scope associated with the likely impact that may result as a consequence of this proposal. ACTEW is investigating opportunities to include the community in rehabilitation activities for the section of Burra Creek between the outlet structure and the Googong dam foreshores. ACTEW is further discussing opportunities and requirements for biodiversity offsets with the relevant government agencies. This will be delivered as described in a Offset Strategy to the satisfaction of the relevant government agencies.</p>
<p>The impact of the combination of the road and pumping as a barrier to fish passage should be overcome by ACTEW offering to rebuild the causeway to facilitate continuous fish passage.</p>	12.3.3	<p>Angle Crossing is already a significant barrier to fish passage in all but the top 4% of flows and at this high flow rate the reduction in depth due to the preferred project will be minimal, therefore ACTEW does not believe it is necessary to construct a fishway as there is minimal impact to mitigate.</p>
<p>The reduction in flows leaving the ACT and resulting environmental impacts should be avoided completely through ACTEW's purchase of additional water entitlements for release from Tantangara. The NSW Government should insist on this approach as an approval condition.</p>	9.4.1	<p>Additional discussion has been factored into Section 9.4.1 in response to queries from the community about the net impact of the project on water flow downstream of the ACT. Overall, the Murrumbidgee to Googong Water Transfer will result in a 1% change in average flows leaving the ACT (with the average flow leaving ACT being 509 GL/annum). There are a range of legislative and commercial arrangements yet to be confirmed before the Tantangara Transfer project can be implemented.</p>
<p>NSW Government should ensure that Snowy Hydro institute appropriate and increased environmental flows as per the 2002 Implementation Deed, released in a manner that benefits the riverine environment, and that these flows are not double-counted with ACTEW's urban water.</p>	1.3 and 5.3.5	<p>Environmental flows will continue to be delivered by Snowy Hydro in accordance with their licence obligations administered by the NSW Office of Water (including any future changes necessary as a result of the 2002 Implementation Deed). Any flows released for ACTEW to abstract to augment the potable water supply will be independent of environmental flows and will have no impact on Snowy Hydros ability to supply water for the environment.</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>Individual BB</p> <p>Concerned about impact on lambing ewes through the removal of trees that provide shelter.</p> <p>Concerned about regrowth of the grass and potential noxious weeds entering the property.</p>	<p>6.11</p> <p>13.6</p>	<p>Construction area will be fenced to prevent animals from entering, tree removal will be minimised</p> <p>BWA will utilise the latest technology and experts in the field of native grass revegetation (i.e. Ian Chivers) to improve native grass revegetation and eliminate noxious weeds. The weed management program will be documented in the Flora and Fauna Management Plan and approved by regulatory agencies.</p> <p>ACTEW's offer of compensation to affected land-holders has been determined by valuation methodology in accordance with the Land Acquisition (Just Terms Compensation) Act 1991.</p>
<p>Individual CC</p> <p>Believe any pumping of water from the river will impact negatively on every aspect of river ecology. Our monitoring has revealed an ever declining flow level, supporting scientific studies on climate change.</p>	<p>4.2.4</p> <p>Chapter 9 and 12</p>	<p>Chapters 9 and 12 assess the impact of the transfer of flows from the Murrumbidgee River to Googong Reservoir, the flow, height and velocity in the Murrumbidgee River and Burra Creek using hydrological modelling. Recommendations to mitigate the identified impacts are provided and an extensive monitoring scheme is proposed</p> <p>There will be a reduction in flows immediately downstream of Angle Crossing in the Murrumbidgee River. This reduction will be most pronounced in the low range flows. The results of reduced flow will be only minor changes to the depth and velocities in the river. A soils management sub-plan will be developed as part of the construction environmental management plan, addressing management changes to local run-off flow patterns across the disturbed bar areas with particular attention to those flow paths that lead directly into the Murrumbidgee River,.</p>
<p>Palerang Shire Council</p> <p>Recommended Condition of Consent that where the pipeline is located along and within a public road formation, the road will need to be reconstructed, at the applicant's expense, as an integral part of the project to ultimate levels, alignment, pavement and sealed surface requirements to achieve Council's standards.</p> <p>All costs associated with the resumption of land for widening of the road in areas of Gibraltar Gap where the pipeline is proposed to be located should be met by the proponent.</p>	<p>No change to the EIS</p> <p>28.1</p>	<p>Those suggested conditions relating to Road Condition, costs and bonds will need further discussion with the authorities because commercial agreement will need to be put in place to protect each party's interests. The intention is to return the roads to "as found" condition where the pipe is being laid in the road reserve</p> <p>ACTEW has made a commitment to continue to work with Palerang Council and community members to identify and assist progression of potential community benefits, including road realignment and safety improvements at Gibraltar Saddle, greenways, and riparian revegetation of Burra Creek through the Burra village area.</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
Provision of detailed cover requirements for the pipeline within the public road formation and associated verges and road reserves to be conditions of consent.	No change to the EIS	Those suggested conditions relating to Road Condition, costs and bonds will need further discussion with the authorities because commercial agreement will need to be put in place to protect each party's interests. The intention is to return the roads to "as found" condition where the pipe is being laid in the road reserve
Road dilapidation Report must be prepared in consultation with Palerang Council and submitted with the Council before construction commences and after construction is completed.	No change to the EIS	Those suggested conditions relating to Road Condition, costs and bonds will need further discussion with the authorities because commercial agreement will need to be put in place to protect each party's interests. The intention is to return the roads to "as found" condition where the pipe is being laid in the road reserve
A Construction Environment Management Plan must be prepared and implemented in accordance with DoP's guidelines. It should be prepared in consultation with relevant government agencies, including Palerang Council and include a traffic and transport management sub plan. Detailed information on the content of these Plans is included as a draft condition of consent.	28.1	This is a commitment in the EIS.
Proponent shall apply to Palerang Council for any proposed temporary road closures. All costs associated with advertising the road closure will be met by the proponent.	No change to the EIS	The suggested conditions relating to road closures will be implemented in accordance with the conditions of approval.
The Proponent is to obtain consent from Palerang Council prior to the use of any nominated storage areas within Williamsdale Road reserve.	No change to the EIS	Those suggested stockpile areas in the road reserve will be implemented as per any conditions of approval
Required to lodge a cash bond or banker's guarantee of \$40,000 with Palerang Council prior to the commencement of any works and/or transport activities in public roads.	No change to the EIS	Those suggested conditions relating to Road Condition, costs and bonds will need further discussion with the authorities because commercial agreement will need to be put in place to protect each party's interests. The intention is to return the roads to "as found" condition where the pipe is being laid in the road reserve
Ensure that civil engineering designers and construction contractors are experienced to AUS-SPEC #1 Development Specification Series and that when working in public road reserves there must be staff onsite who are NSW RTA accredited to work with worksite traffic control plans.	No change to the EIS	Noted and agreed.
Specific lists have been provided in relation to Inspection and Test Plans for roadworks detailing Witness Points and Hold Points for inspection and release by the Certifier at identified stages.	No change to the EIS	Roadworks will be limited to reinstatement only. This will be done in accordance with Council requirements.
Requirement to present to Council a Certification Report for Construction as set out in AUS-SPEC #1 Development Specification Series, Clause 1 CQC7(1)	No change to the EIS	Roadworks will be limited to reinstatement only. Certification to AUS-SPEC #1 Development Specification Series, Clause 1 CQC7(1) may not be applicable to reinstatement works.
Required to submit to Council copy of 'Works as Executed' plan.	No change to the EIS	A copy of the WAE drawings for the sections of pipeline within the Williamsdale Road reserve will be provided to Palerang Council.

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>A defects liability period of 6 months will be applied from the date of completion. A bond will be required to be placed with Council to provide for any defective or inadequate work.</p>	<p>No change to the EIS</p>	<p>Those suggested conditions relating to Road Condition, costs and bonds, liability periods and the like will need further discussion with the authorities because commercial agreement will need to be put in place to protect each party's interests. The intention is to return the roads to "as found" condition where the pipe is being laid in the road reserve</p>
<p>Excavation material shall be audited and verified to be clean fill prior to being spoiled on-site or stockpiled for future use by Council. The proponent shall verify that appropriate APPROVALS have been obtained.</p>	<p>19.1.2</p>	<p>All necessary approvals will be sought from necessary authorities, including an EPL for soil excavation as required.</p>
<p>Construction work shall be restricted to 7am-6pm Mondays to Fridays and on Saturdays 7am - 1pm in inaudible on residential properties, otherwise 8am - 1pm. No construction work shall take place on Sundays or Public Holidays.</p>	<p>6.11</p>	<p>Construction time requirement stated, Sunday work not proposed. Management plans will be prepared in consultation with relevant experts and endorsed by relevant agencies.</p>
<p>Individual AA (via the National Capital Authority)</p>		
<p>Support the proposal as the least worst alternative in terms of environmental impact. Requests that the National Capital Authority raise two particular issues with ACTEW within the organisation's approval role.</p> <ul style="list-style-type: none"> - Improvement to fish passage at Angel Crossing - Riparian Restoration 	<p>1.2.3, 5.5.1 of Appendix G</p>	<p>ACTEW appreciates all submissions made on the draft EA/EIA and will continue to strive for community acceptance of the M2G Project through open and efficient channels of communication and dedication to minimising environmental harm.</p> <p>The need for the construction of a fish passage has been investigated in consultation with relevant fish experts (refer to Section 5.5.1 of Appendix G) and ACTEW does believe it is necessary to create a fish passage to mitigate environmental impact of the preferred project. This is discussed further in Section 12.3.</p> <p>The rehabilitation of riparian environments will be documented in the Aquatic Ecology Management Sub Plan with endorsement from the NSW EPA.</p>
<p>The impact of the combination of the road and pumping as a barrier to fish passage should be overcome by ACTEW offering to rebuild the causeway to facilitate continuous fish passage.</p>	<p>12.3.3</p>	<p>Angle Crossing is already a significant barrier to fish passage in all but the top 4% of flows and at this high flow rate the reduction in depth due to the preferred project will be minimal, therefore ACTEW does not believe it is necessary to construct a fishway as there is minimal impact to mitigate.</p>
<p>Would like to see a substantial commitment by ACTEW for a consistent riparian restoration program along the Murrumbidgee, possibly with payments linked to the volume of water transferred. A riparian restoration program along the Murrumbidgee River should enhance the conservation of water and biodiversity through agreements with landholders, stock exclusion fencing, off river stock watering points, weed control and replanting indigenous vegetation. ACTEW should consider partnering with appropriate organisations in the upper Murrumbidgee River catchment to undertake this program.</p>	<p>27.3.4</p>	<p>Majority of degraded riparian zones are the result of an extended period of poor land management. The impacts associated with this are considered outside the scope associated with the likely impact that may result as a consequence of this proposal. ACTEW is investigating opportunities to include the community in rehabilitation activities for the section of Burra Creek between the outlet structure and the Googong dam foreshores. ACTEW is further discussing opportunities and requirements for biodiversity offsets with the relevant government agencies. This will be delivered as described in a Offset Strategy to the satisfaction of the relevant government agencies.</p>
<p>Minority Response from Burra Landcare Group</p>		

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>During the mid-70s Burra and Urila Creek ran continuously with high flows for a number of years. I didn't see any long term damage to the ecology of the creek apart from natural erosion on some bends and deposits of sand. In my view the scouring of the local creeks, changing them from a chain of ponds to a boulder bed is due more to the prolonged effects of grazing by hoofed animals, than by high water flows.</p>	<p>Chapters 10, 11, 12 and 28</p>	<p>The EIS concludes that the impact of this preferred project on Burra Creek is low to moderate as discussed in Chapters 10, 11 and 12. ACTEW has proposed a range of appropriate mitigation and measures and associated monitoring in relation to Burra Creek.</p>
<p>Concerned that there is not enough water in the Murrumbidgee system to feed the dam and until we have return to a wetter climate regime the construction of this pipeline will be a waste of money. Far better to concentrate on the Cotter Dam</p>	<p>6.10.2</p>	<p>All flow modelling and projections of water extraction from the Murrumbidgee River, as described in chapter 6 of the EIS and Appendix C have taken into account historical flows in the river, including recent low flows. The amount of water available to be pumped is projected to be sufficient to make the preferred project viable. Analysis undertaken in relation to the viability of the Enlarged Cotter Dam concurs with this.</p>
<p>Individual DD</p>		
<p>Interested in how the alignment of the trench and pipe will affect it surroundings during and post construction, particularly the mature poplar trees on their property.</p>	<p>No change to the EIS</p>	<p>The trench for the proposed pipeline will be situated in relative proximity to the alignment of poplars on the northern boundary of, and the southern side of the driveway into, this property. It is anticipated however that the trench will be situated outside of the root zone of these trees. The erection of temporary fencing around the trees for the duration of construction works can be included in the actions specified in the Construction Environmental Management Plan.</p>
<p>Keen to ensure that mature poplar trees on the property are not affected, or have their roots damaged, as they are an important representation of European heritage.</p>	<p>No change to the EIS</p>	<p>The trench for the proposed pipeline will be situated in relative proximity to the alignment of poplars on the northern boundary of, and the southern side of the driveway into, this property. It is anticipated however that the trench will be situated outside of the root zone of these trees. The erection of temporary fencing around the trees for the duration of construction works can be included in the actions specified in the Construction Environmental Management Plan.</p>
<p>It will be ineffective to dump any type of spoil, such as earth, in an erosion gully will lead to it being washed into the creeks during the first major flood event.</p>	<p>19.4, 28.1</p>	<p>Appropriate management plans will be implemented as described in EIS.</p>
<p>During construction of the pipeline and trench, and subsequent covering, weeds must not be introduced to our property. We have invested significantly in maintaining our property essentially weed-free.</p>	<p>13.6</p>	<p>Appropriate management plans will be implemented as described in EIS.</p>
<p>When construction is finished the ground-cover must be restored to its previous state, both with topsoil and pasture sewing</p>	<p>27.3.4</p>	<p>ACTEW acknowledge this comment, a rehabilitation plan will be developed to describe the rehabilitation management, objectives and activities necessary to assess and rehabilitate areas impacted by construction works including groundcover. A monitoring program will be implemented for one year after rehabilitation has begun by the construction team.</p>
<p>Concerned about the scour valve locations on and near the property. If</p>	<p>6.10.3</p>	<p>As discussed in Section 6.10.3 of the EIS the scour valves will drain into a</p>

Comment	Relevant Section modified in the EIS	ACTEW Response
<p>draining is required, it would seem likely that a great deal of sediment and other contaminants that has collected at these low points will be released, along with turbid Murrumbidgee water. It must be contained in a stable, water-tight dam of sufficient size to allow any single drainage event to be contained without entering our creeks. How often will scour valves be opened, how do the tankers access our property?</p>		<p>tanker, thereby avoiding sediment release. Scour valve operation will be infrequent, of the order of one or twice per year, and access will be discussed with landowners as necessary.</p>
<p>Concerned about the noise from air vents located on the property. Why has important real-life experiments not been undertaken to measure the noise of air valves already existing on other pipelines. There is also a failure to explain the frequency of the 'blow off' of air valves during operation, how often they will occur, how long the pipeline will take to fill and for how long the continuous sound will occur. It is incorrect to state that 'meteorological' affects are not important to the level of noise disturbance. The noise we hear from surroundings depends greatly on the micro meteorological state of the valley.</p>	<p>20.4.2, Figure 3.9</p>	<p>In response to concerns raised by the community additional information on the noise associated with air vents and scour valves has been incorporated into the EIS at S 20.4.2. The frequency of noise emissions from the air valves is considered to be low. The air release valves will only operate for a short duration, that is, less than approximately 30 seconds. There will not be any significant levels of noise associated with the operation of the scour valves. Location of air and scour valves are shown at figure 3.9</p>
<p>We believe that the EA/EIS shows up too many problems and uncertainties to allow the project to proceed. The construction of the enlarged Cotter Dam should take precedence over the Murrumbidgee to Googong pipeline, which project should be abandoned.</p>	<p>7.2.17</p>	<p>It is noted that the preferred project has not received unanimous support. This project is part of the suite of Water Security Major Projects which have been designed collaboratively to diversify the water infrastructure of the ACT and therefore increase security across water supply. The range of options explored in the development of the suite of projects is discussed in Chapter 7.</p>