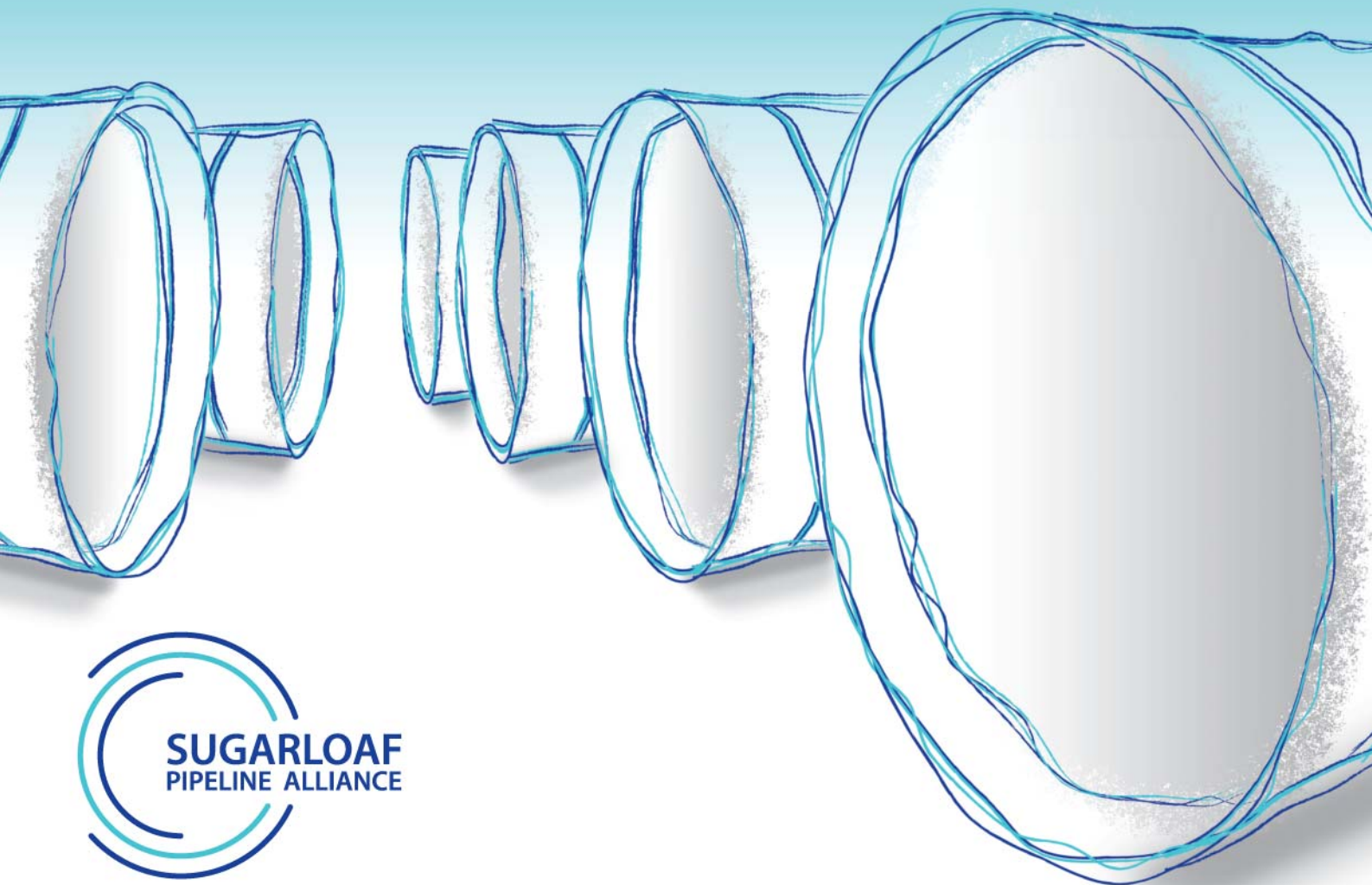


report

Sugarloaf Pipeline Alliance Annual Report to DSEWPC

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ABBREVIATIONS AND KEY TERMS

ACRONYM	FULL TITLE
DEWHA	Department of the Environment, Water, Heritage and the Arts (Commonwealth)
DSE	Department of Sustainability and Environment (Vic)
DSEWPC	Department of Sustainability, Environment, Water, Population and Communities (Commonwealth, formerly DEWHA)
EMP	Environmental Management Plan
EMS	Environmental Management Strategy
EP	Environmental Program
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)
FFG Act	Flora and Fauna Guarantee Act 1988 (Vic)
GBCMA	Goulburn Broken Catchment Management Authority
GSM	Golden Sun Moth
PEC	Plan of Environmental Controls
Retailers	The three metropolitan retail water corporations that supply water to customers in Melbourne – City West Water, South East Water, Yarra Valley Water.
ROW	Right of Way
SEP	Site Environmental Plan
SEPP (WoV)	State Environment Protection Policy (SEPP) (Waters of Victoria 2003)
SLL	Striped Legless Lizard
the EPBC Approval	The Approval granted to the Sugarloaf Pipeline Project under the EPBC Act. The approval decision is formally referred to as Sugarloaf Pipeline Project, Goulburn River to Sugarloaf Reservoir, Victoria (EPBC 2008/3960)
WAP	Work Activity Pack

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1 Introduction

1.1 Project Background

The Sugarloaf Pipeline Project is part of the Victorian Government's *Our Water, Our Future - The Next Stage of the Government's Water Plan*. Melbourne Water was responsible for funding and constructing the \$625 million Sugarloaf pipeline linking the Goulburn River near Yea (approximately 100km northeast of central Melbourne) to the Sugarloaf Reservoir in Melbourne's north-east (*the Project*).

The purpose of the Project was to construct a pipeline and associated infrastructure to transfer Melbourne's share of the water savings from irrigation modernisation projects in Northern Victoria to Melbourne's water distribution network via Sugarloaf Reservoir. The Project comprised two major pump stations, associated power supply connections, balancing storage(s) and a 70km pipeline capable of transferring up to 75GL per annum from the Goulburn River to Melbourne Water's Sugarloaf Reservoir.

The Project received State Government approval on 6 August 2008 and Federal approval under the *Environmental Protection and Biodiversity Conservation Act 1999* (the *EPBC Act*) on 12 September 2008, subject to conditions.

The Project was completed by the Sugarloaf Pipeline Alliance in the first half of 2010. The Sugarloaf Pipeline Alliance is comprised of Melbourne Water Corporation, Sinclair Knight Merz Pty Ltd, GHD Pty Ltd and John Holland Pty Ltd. The Sugarloaf Pipeline Alliance is responsible for overall planning, design, procurement, construction, commissioning and completion activities associated with the Project. The Project is now complete and is being operated by Melbourne Water. The Alliance has a continuing role in undertaking additional reinstatement, environmental monitoring activities and rectifying any defects until the first half of 2012.

1.2 Approval Requirements

This report is in response to Condition 14 of the *EPBC Act 1999* approval (EPBC 2008/3960) and addresses the Sugarloaf Pipeline Alliance's compliance with EPBC Act approval conditions placed on the project and EPBC listed species surveys, environmental monitoring, adaptive management, remedial actions and the effectiveness of these measures to mitigate impact on EPBC listed species.

Condition 14 of the EPBC Approval states:

“The person taking the action must provide by August each year an annual report on the compliance with these conditions, including the results of all EPBC listed surveys and environmental monitoring undertaken, independent audited reports of water savings achieved and the amount of water allocated for extraction, any adaptive management, any remedial actions taken and the effectiveness if the measures implemented to mitigate the impact on EPBC listed species. “

It is noted that the Federal Department responsible for administering the EPBC Act is now the Department of Sustainability, Environment, Water, Population and Communities (DSEWPC), which was established 14 September 2010. This report refers to the Department as the Department of Environment Water Heritage and the Arts (DEWHA) for matters prior to September 2010.

Note that, in response to a request made by Melbourne Water on 27th August 2010, a variation to Condition 14 was approved by DSEWPC on 28th October 2010, which altered the date in the above condition to 30th November each year. This change was made to harmonise reporting requirements to DSEWPC with independent annual audits on water allocations and transfers via the pipeline.

The Project has complied with the conditions of the EPBC Approval for the current reporting period, with the exception of two breaches of condition 11(b). These are discussed in detail in section 3 of this report.

1.3 Report Structure

To address the requirements of the EPBC Approval conditions, this report has been structured as follows:

- Section 2 summarises the project's compliance with the conditions of the EPBC Approval;
- Section 3 summarises the independent audited reports of water savings achieved;
- Section 4 outlines the results of surveys of EPBC listed species undertaken; and
- Section 5 addresses the ongoing management of EPBC listed species.

2 Summary of Compliance with DEWHA Conditions

The EPBC Approval granted to the Project on 12 September 2008 is subject to 17 conditions. This section provides each of those conditions, with a summary of the Project's compliance for the current reporting period. The wording in the original EPBC Approval has been maintained, with variations noted in the summary of compliance where relevant.

2.1 Protection of *Environment Protection and Biodiversity Act 1999* listed species

Condition 1: To protect the Environment Protection and Biodiversity Conservation Act 1999 (EPBC) listed species that are known or could potentially occur in the action area, the person taking the action must implement the commitments made in the Environmental Management Strategy July 2008 and the associated documents referred to in the Environmental Management Strategy July 2008.

As part of the Environmental Management Strategy (EMS), Mitigation Plans were developed for fauna, flora and aquatic species listed under either the EPBC Act or the Fauna and Flora Guarantee Act 1988 (Vic) (the FFG Act). The EMS was implemented through more detailed associated plans and programs as outlined below.

2.1.1 Environmental Management Plans

For each designated geographical section of the Project, a draft EMP was prepared. Feedback for each draft EMP was then sought from the Victorian Department of Sustainability and Environment (DSE), the Victorian Department of Planning and Community Development (DPCD) and other relevant regulatory authorities. As requested, feedback was sought from DEWHA for the Toolangi State Forest, Sugarloaf Reservoir, Tunnel Portals and Category A Waterway Crossing EMPs. Feedback from regulatory authorities was addressed by the Alliance in the preparation of final EMPs. All EMPs were endorsed or approved by the relevant regulatory authorities.

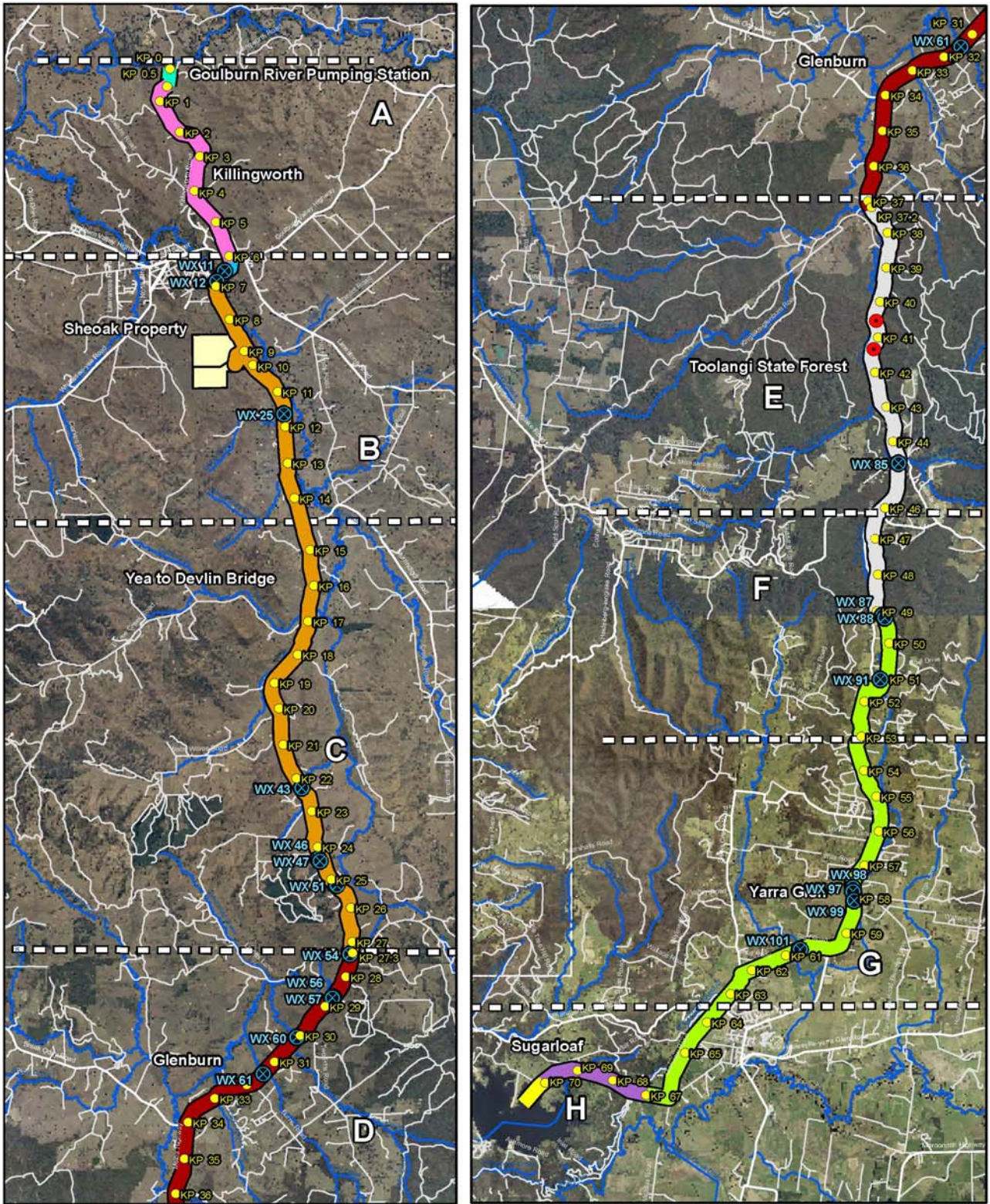
The area specific EMPs applied to each of the following seventeen sections:

- Goulburn River Pump Station;
- Killingworth;
- Yea to Devlin Bridge;
- Glenburn;
- Toolangi State Forest;
- Yarra Glen;
- Sugarloaf Reservoir;
- Sugarloaf Reservoir Goulburn Inlet;
- Temporary Pipe Storage – Sugarloaf Reservoir;
- Temporary Pipe Storage – Yarra Ranges;
- Temporary Goulburn Access Track;
- Sheoak High Lift Pump Station (Sheoak HLPS);

- Tunnel Portals;
- Waterway Crossings – Yea River at Yea and Kalatha Creek;
- Waterway Crossings – Yea River at Castella;
- Waterway Crossings – Yea River at Devlins Bridge;
- Waterway Crossings - Category B.

All of the actions and procedures set out in the EMPs were implemented and further details are provided in subsequent sections of this report.

Figure 1 shows the pipeline EMP sections. The smaller waterway crossings EMPs and the Temporary works EMPs are not represented on this map.



Sugarloaf Pipeline Project

EMP Zones

- Tunnel Portal (KP 40.50 & 41.36)
- KP chainage points (approximate)
- ⊗ Waterway Crossings EMP
- Killingworth (KP 0.5 - 6.2)
- Yea to Devlin Bridge (KP 7 - 27.3)
- Glenburn (KP 27.3 - 37.2)
- Toolangi State Forest (KP 37.2 - 49)
- Yarra Glen (KP 49 - 67)
- Sugarloaf (KP 67 - 70.5)
- Sugarloaf Inlet (KP 70 - 70.3)
- Sheoak Property - Sugarloaf High Lift Pumping Station
- Goulburn River Pumping Station (KP 0 - 0.5)
- Yea River Waterway Crossing (KP 6.2 - 7)



UGRA W 0455

Kilometers

This document incorporates data which is:
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Figure 1: Map of the Sugarloaf Pipeline Project with EMP Zones marked

2.1.2 Environmental Programs

Each EMP includes environmental management information and requirements of the specific area covering several disciplines. Each discipline has an environmental programs specific to that EMP section. The aspects covered by these environmental programs include:

- Air Quality Management;
- Fauna Management;
- Vegetation Management;
- Greenhouse Gas Management;
- Biosecurity Management;
- Contaminated Land Management;
- Erosion and Sediment Management;
- Fire Management;
- Groundwater Management;
- Slope Stability Management;
- Hazardous Substances Management;
- Cultural Heritage Management;
- Pest Animal Management;
- Noise and Vibration Management;
- Reinstatement Management;
- Waste Management;
- Waterways Management;
- Weed Management.

All of the actions and procedures set out in the EPs were implemented and further details are provided in subsequent sections of this report.

2.1.3 Site Specific Environmental Plans

The project is further divided at site level, with the construction team being provided for a Work Activity Pack (WAP) for each individual site. The WAP compiles all the necessary information to ensure that the Project meets all planning and environmental requirements. Each WAP includes a site specific Plan of Environmental Controls (PEC) and a Site Environmental Plan (SEP), which is an aerial photograph showing of environmental controls for the site.

All of the actions and procedures set out in the WAPs were implemented, with the exception of those Non Compliances listed in Appendix A. Further details are provided in subsequent sections of this report.

2.2 Implementation of Flora Mitigation Plans

Condition 2: To protect the EPBC listed flora species that are known to occur or could potentially occur in the action area, in particular the Matted Flax-lily (*Dianella amoena*), Clover Glycine (*Glycine latrobeana*), Little Pink Spider Orchid (*Caladenia rosella*) and the River Swamp Wallaby Grass (*Amphibromus fluitans*), the person taking the action must implement the Mitigation Plan for EPBC Act and Victorian Flora and Fauna Guarantee Act 1988 (FFG Act) Listed Flora Species July 2008.

The obligations in the Mitigation Plan for EPBC Act and Victorian Flora and Fauna Guarantee Act 1988 (FFG Act) Listed Flora Species July 2008 for flora species have been transferred in to the relevant EMPs and EPs. The Vegetation Management Program and Reinstatement Management Program for each EMP section contain procedures for monitoring, management and mitigation of listed species that the Alliance has implemented.

The only EPBC listed flora species confirmed to occur by the Alliance's botanists was Matted Flax-lily (*Dianella amoena*).

Management of the Matted Flax-lily included the formation of exclusion zones where construction would not impact on the species and translocation where impact is unavoidable. Several patches of Matted Flax-lily were removed from the Yarra Glen EMP Section and translocated. A Matted Flax-lily Translocation Commitment has been developed by the Alliance in consultation with DEWHA, DSE and Melbourne Water and has been endorsed by the above parties.

Translocation of the Matted Flax Lily has been undertaken in accordance with the Permit to Take Protected Flora (Permit No. 10004246), which was issued to Melbourne Water by the Department of Sustainability and Environment (DSE) on 5 September 2008.

Ongoing requirements for monitoring and management will continue to be implemented for the Matted Flax Lily and are discussed in section 5.3.

2.3 Implementation of Fauna Mitigation Plans

Condition 3: To protect the EPBC listed terrestrial species that are known to occur in the action area, in particular the Striped Legless Lizard (*Delma impar*), Southern Brown Bandicoot (*Isodon obesulus obesulus*), Spotted Tail Quoll (*Dasyurus maculatus maculatus* [SE mainland population]), Growling Grass Frog (*Litoria rainformis*), and Golden Sun Moth (*Synemon plana*), the person taking the action must implement the Mitigation Plan for Terrestrial Fauna Listed under the EPBC Act and FFG Act July 2008.

The obligations in the Mitigation Plan for Terrestrial Fauna Listed under the EPBC Act and FFG Act July 2008 for terrestrial fauna species have been transferred into the relevant EMPs and EPs. The Sugarloaf Pipeline Alliance has incorporated relevant procedures into the section based EMPs and WAPs which have been implemented. The Fauna Management Program, Pest Animal Management Program and Reinstatement Management Program for each EMP section contain procedures for monitoring, management and mitigation of listed species that the Alliance will continue to implement.

During the course of the project, the Alliance has identified the presence of the Golden Sun Moth (GSM) and Striped Legless Lizard (SLL) at a number of locations in the construction Right of Way (ROW). Comprehensive mitigation and management procedures were implemented during construction of the Project. For the GSM, the finding of larger than anticipated populations resulted in the development and implementation of comprehensive mitigation measures being incorporated into EMPs than were specified within the Mitigation Plan for Terrestrial Fauna.

Despite a range of targeted surveys for EPBC listed species, no Growling Grass Frog, Spotted Tail Quoll or Southern Brown Bandicoot have been found within the construction area during any stage of the project. Specific mitigation measures were still implemented for these species, and all other fauna species noted within the Mitigation Plan for Terrestrial Fauna.

Ongoing requirements for monitoring and management will continue to be implemented for GSM and SLL and are discussed in section 5.1 and 5.2 respectively.

2.4 Implementation of Aquatic Fauna Plans

Condition 4: To protect the EPBC listed aquatic fauna species that are known to occur or could potentially occur in the action area, in particular the Macquarie Perch (*Macquaria australasica*), Trout Cod (*Maccullochella macquariensis*) and Murray Cod (*Maccullochella peelii*), the person taking the action must implement to Mitigations Plan for EPBC Act and FFG Act Listed Aquatic Fauna Species July 2008.under the EPBC Act and FFG Act July 2008.

The obligations in the Mitigations Plan for EPBC Act and FFG Act Listed Aquatic Fauna Species July 2008 have been transferred into the relevant EMPs and EPs. The Sugarloaf Pipeline Alliance has incorporated relevant procedures into the section based EMPs and WAPs and have been implemented. The Fauna Management Program, Erosion and Sediment Management Program and Waterway Management Program for each EMP section each contain procedures for monitoring, management and mitigation of listed aquatic species that the Alliance has implemented.

During aquatic surveys in November 2009, a Macquarie Perch was recorded in the Yea River, at a site downstream of the Devlin's Bridge crossing. It should be noted that the Macquarie Perch recorded in the Yea River was not found within the construction ROW, and additional management measures are not required.

2.5 Management of Golden Sun Moth

Condition 5: Where Golden Sun Moth known habitat cannot be avoided during February to September, the person taking the action must implement the experimental process of habitat slab replacement in known Golden Sun Moth habitat. The area in which the process is undertaken must be monitored for two years following the completion of the habitat slab replacement.

If monitoring indicates a decline or loss of the Golden Sun Moth population, an offset package must be submitted to the Department within 6 months of the monitoring results. This package must be approved by the Department and implemented. The offset package may include the purchasing of an area of Golden Sun Moth habitat of at least equal size for conservation and contribution to research and recovery.

Surveys were undertaken during the active season for the GSM with large populations recorded across the Sheoak HLPS EMP Section, and smaller populations at a single property within the Killingworth EMP Section and at a number of properties within the Yea to Devlin Bridge EMP Section.

The Alliance has implemented procedures for monitoring, management and mitigation of the GSM described in the endorsed Fauna Management Program for each EMP section. Survey results and management measures for GSM (including habitat slab replacement experiments and grassland reinstatement experiments) are included below (Section 4.4.1 and 5.1). Through a process of detailed discussion with DEWHA and the DSE, an overarching GSM document has been prepared, which outlines the mitigation measures and procedures specific to the GSM.

The Alliance is also undertaking several mitigation measures including development of a Conservation Management Plan for the Sheoak property, which through discussion with DSE and DSEWPC, will form the basis of an offset package if monitoring indicates a decline or loss of GSM population. DEWHA has previously indicated that should the habitat slab replacement experiment fail, the Sheoak Property offset package along with other measures already committed to by Melbourne Water would be sufficient to offset this loss.

2.6 Management of Little Pink Spider Orchid

Condition 6: If the Little Pink Spider Orchid is found within the construction corridor and avoidance is not possible, the Department must be notified before construction in the area can

commence and the persons taking the action must provide evidence that all alternative mitigation options for this species have been exhausted prior to proposing to translocate. The Department must approve the translocation.

Seasonal surveys were undertaken targeted toward the presence of the Little Pink Spider Orchid. No orchids were located; however, actions were implemented to reflect the precautionary approach, particularly in the Sugarloaf and Yarra Glen EMP sections.

2.7 Management of Matted Flax-lily, Clover Glycine, River Swamp Wallaby Grass and Little Pink Spider Orchid

Condition 7: If, following the outcomes of required monitoring, the translocation and adaptive management of the Matted Flax-lily, Clover Glycine, River Swamp Wallaby Grass and Little Pink Spider Orchid is found not to have been successful, an offsets package for each relevant species must be provided to the Department within 6 months. The offsets package must be approved by the Department and Implemented. The offsets package may include the purchasing of an area of know habitat of at least equal size for conservation and the contribution to research and recovery.

No Clover Glycine, River Swamp Wallaby Grass or Little Pink Spider Orchid have been located.

Several patches of Matted Flax-Lily were located in the Yarra Glen and Killingworth EMP Sections and translocation was undertaken where the species would be impacted. The Alliance has produced a specific Matted Flax-Lily translocation document which was endorsed by DEWHA, DSE and other relevant stakeholders. See section 5.3 for details on Matted Flax-lily mitigation measures.

2.8 Water Quality Monitoring

Condition 8: To protect the Macquarie Perch and Growling Grass Frog, water quality must be monitoring during construction of waterway crossings to meet State Environment Protection Policy (SEPP) (Waters of Victoria 2003) objectives. If the water quality fails to meet SEPP (WoV), due to construction activities associated with the project adaptive management must be implemented. In this event the Department must be provided, within two months of the monitoring results being known, with a report stating the corrective action implemented and the results.

Compliance with the SEPP (WoV), was included as an objective in the EMS, and was specifically included in the Waterway Crossings EMPs and the Erosion and Sediment Management Program. The Alliance developed a Water Quality Monitoring Procedure, a requirement of which was a minimum of daily monitoring at all waterway crossings with flowing water. Fixed turbidity monitors were installed at upstream and downstream locations of the Yea River and its tributaries during construction. Samples were also taken by Site Environmental Officers with hand held water quality meters at various locations throughout the project.

Given that construction of waterway crossings is now completed, compliance with this condition will no longer need to be reported on in future annual reports.

2.9 Provision of Waterway Crossing Plans

Condition 9: The Waterway Crossings Category A and B Plans must be provided to the Department for approval prior to construction of the waterway crossings. These plans must include turbidity controls and creeks to be tunnelled. These plans must be implemented.

The EMPs for each of the Category A and B Waterway Crossings were endorsed by DSE and DEWHA prior to commencement of construction on these sections.

It is no longer necessary to report on compliance with this condition.

2.10 Approval of Water Quality Monitoring Procedure

Condition 10: The Water Quality Monitoring Procedure must be provided to the Department for approval prior to construction commencing of the waterway crossings. This procedure must include turbidity monitoring. This procedure must be implemented.

A Water Quality Monitoring Procedure, including turbidity monitoring, was completed and subsequently approved by DEWHA alongside the Waterway Crossings Category B EMP on the 23rd of March 2009.

The Water Quality Monitoring Procedure detailed the monitoring procedures that the Alliance committed to implementing for the duration of the project.

The Sugarloaf Pipeline Alliance undertook all monitoring and investigations required by the Water Quality Monitoring Procedure throughout the reporting period of the 2009/2010 Annual Report.

Given that construction of waterway crossings is now completed, compliance with this condition will no longer need to be reported on in future annual reports.

2.11 Limitation of Pipeline Operational Volumes

Condition 11: To protect EPBC listed fish species (Trout Cod (*Maccullochella macquariensis*), Murray Cod (*Maccullochella peelii*) and Macquarie Perch (*Macquaria australasica*)) that occur or may occur in the Goulburn River, the Melbourne Water extracted to the Sugarloaf Pipeline must be:

- a) not more than 75GL in any one year;***
- b) not more than 360 ML per day, with any variation in this daily pumping rate limited to a maximum of 200 ML to minimise the rise and fall in river levels upstream and downstream of the off-take structure.***
- c) met only through controlled, pre-ordered releases from Melbourne's share of the water savings allocated to it pursuant to any bulk entitlement issued under the Victorian Water Act 1989;***
- d) sourced from savings not allocated to the Living Murray Initiative or the Waters for Rivers; and***
- e) zero if the necessary regulated releases are for the maintenance of environmental flows or materially deplete water stored in Eildon Weir that is designated as being an environmental reserve.***

All water savings taken from the Goulburn River must be sourced from projects that comply with the requirements of the Environment Protection and Biodiversity Conservation Act 1999.

Note that, in response to a request made by Melbourne Water on 27th August 2010, a variation to Condition 11 (a) above was approved by DSEWPC on the 28th of October 2010, to provide clarity, and now reads:

- a) not more than 75GL in any period of 12 calendar months beginning on 1 July in any year and ending on 30 June in the following year;***

Throughout November and December 2008, Melbourne Water, DSE and the Goulburn-Broken Catchment Management Authority (GBCMA) negotiated the following conditions, as part of the Heritage Rivers Act approval, to ensure that rates of rise and fall of the Goulburn River in response to diversion at the Sugarloaf Pipeline Intake are managed to within acceptable levels (as specified by state and federal government):

- For river passing flows below 300 ML/day, there is no diversion to the pipeline;
- For river passing flows between 300ML/day and 799ML/day, diversion can only be increased or decreased by up to 75ML/day;
- For river passing flows between 800ML/day and 1499ML/day, diversion can only be increased or decreased by up to 120ML/day;
- For river passing flows of 1500ML/day or greater, diversion can only be increased or decreased by up to 180ML/day.

These conditions were negotiated in response to the conditions placed by DEWHA on the water volume and operational limitations of water extraction from the Goulburn River. Further details of these licence conditions are provided in Section 3.2.2 of this report.

Water extracted to the Sugarloaf Pipeline has generally been compliant with condition 11 of the EPBC Approval, with the exception of condition 11(b). There have been two occasions where operation of the pipeline was in breach of the requirement that any variation in daily pumping rate is limited to a maximum of 200ML. In addition there was one occasion where operation of the pipeline was in breach of the relevant diversion rate specified by the GBCMA. Section 3.2 of this report provides details of those non-compliances and measures taken to prevent similar breaches occurring in the future.

Details of compliance with condition 11 (a), (c), (d) and (e) are also provided in Sections 3.1 and 3.2 of this report.

2.12 Passage of Groundwater

Condition 12: The pipeline crossings of the Yea River flood plain must ensure passage of groundwater. This may be achieved by use of groundwater shunt within the deep channel to permit the water tables to equilibrate post construction across the pipeline or by some alternative method.

The endorsed Waterway Crossing - Yea River at Yea and Kalatha Creek section EMP addresses the issue of the passage of groundwater.

The pipeline crossing over the flood plain extends for approximately 450m.

The original concept was modified by reducing the depth of excavation to minimise the intersection with groundwater and ensuring that the material used to backfill the trench is more permeable than the native soil material. Backfill materials were chosen to be suitably permeable, lacking the imbrication or microstratification of clay lenses which could be reasonably expected in an alluvial sequence. In those areas where the pipe trench intersects weathered basement materials, or silty clay soils, the permeability of the backfill sands could be several orders of magnitude greater than the native soils.

This aims to restore the groundwater flow path around the pipe after construction. Inspections were undertaken by hydro-geological staff to identify any anomalies or unexpected flows that could require additional treatment. Groundwater levels have been monitored within the Yea flood plain on a monthly basis since the completion of construction. Groundwater monitoring bores are positioned upstream and downstream of the pipeline alignment. Groundwater monitoring shows an increase in water levels, which is consistent across the project study area and region and is a result of recent increases in rainfall. Changes in water levels are consistent on both the upstream and downstream sides of the pipeline, which indicates the pipeline is not obstructing groundwater flow within the flood plain.

2.13 Forest Rehabilitation Plans

Condition 13: Prior to construction through the Toolangi State Forest and the Sugarloaf Forest, the person taking the action must provide the Department with the Toolangi State Forest Rehabilitation Management Plan and the Sugarloaf Forest Rehabilitation Management Plan for approval. These plans, once approved, must be implemented.

Reinstatement Management Programs have been produced for each of the sections of the pipeline including the Toolangi State Forest, Tunnel Portals and Sugarloaf Forest. These Reinstatement Management Plans have been approved by DEWHA.

Following the Black Saturday bushfires amendments were made to the Toolangi State Forest Reinstatement Management Programs. Amendments relating to the rehabilitation of fauna habitats were in the form of four discussion papers, and have been endorsed by DPCD, DSE and DEWHA. This includes ongoing fauna monitoring requirements in Toolangi State Forest, including the Tunnel Portal EMP section.

Some items included in the Sugarloaf Reservoir Reinstatement Management Program relating to habitat reinstatement are still under discussion with Melbourne Water and DSE.

Items in the amended Reinstatement Management Programs still to be closed out will be reported on next year.

2.14 Annual Report on Compliance with Conditions

Condition 14: The person taking the action must provide by August each year an annual report on the compliance with these conditions, including the results of all EPBC listed surveys and environmental monitoring undertaken, independent audited reports of water savings achieved and the amount of water allocated for extraction, any adaptive management, any remedial actions taken and the effectiveness of the measures implemented to mitigate the impact on EPBC listed species.

This report is the 2009/10 annual report addressing this condition. Note that, in response to a request made by Melbourne Water on 27th August 2010, a variation to this Condition was approved by DSEWPC on 28th October 2010, which changed the annual reporting date to 30 November of each year.

A table of noncompliance reports that may have an impact on these conditions has been included as Appendix A. Appendix A of this report provides a list of Non-Compliance reports relating to the EPBC Act conditions. In each case the Alliance responded by assessing any impact to the environment, taking action to remedy any impacts and to prevent any similar non-compliance occurring again. In each case the Alliance was able to confirm that there were no impacts on any EPBC listed species. Because each case was a non-compliance with the works methodologies developed to protect EPBC listed species, but did not directly impact an EPBC listed species, it is considered that the Project has complied with conditions of Approval.

Appendix A does not include any Non-Compliances relating to extraction of water. These are addressed separately in Section 3 below.

2.15 Changes to Documentation/Conditions

Condition 15: If the person taking the action wishes to carry out any activity otherwise than in accordance with the documents identified in the above conditions relevant to EPBC listed species, the person taking the action must submit for the Department's approval a revised version of the document. If the Department approves a revised document, that document must be implemented in place of the document originally approved.

The Alliance has obtained approval from DEWHA for any changes to documentation or conditions required. Some changes reflecting an Adaptive Management approach have been implemented in consultation with the Department of Sustainability and the Environment and DEWHA including but not limited to:

- Change of annual reporting date to 30th November;
- Clarification of period of operational volume limitations in Condition 11a to be the Victorian Water Year (1 July - 20 June);
- Minor amendments to Environmental Management Plans and Programs as discussed in previous sections.

2.16 Recordkeeping

Condition 16: The person taking the action must maintain accurate records of all activities associated with or relevant to the above conditions of approval, and make them available on request by the Department. Such records may be subject to audit by the Department, and used to verify compliance with the conditions of approval.

Project documentation is currently in the process of being handed over to Melbourne Water from the Alliance. Melbourne Water will maintain accurate records and will readily make them available to DSEWPC on request.

2.17 Commencement of Construction

Condition 17: If the person taking the action has not commenced construction of the action within 5 years of this approval then they must notify the Minister in writing and not commence construction without the Minister's agreement.

As the Alliance has completed construction of the project this condition is no longer applicable.

3 Independent Audited Reports of Water Savings

As part of Condition 14, DEWHA required independent audited reports of water savings achieved and the amount of water allocated for extraction. In later correspondence with the Alliance the following information was requested in determining compliance with the water savings audit component of Condition 14:

- *all water 'accounts' held in Lake Eildon from which water will be drawn to supply the Sugarloaf Pipeline;*
- *Source, volume and timing of any water accruing to the above accounts;*
- *Volume and timing of any water released from the above accounts to supply the Sugarloaf Pipeline;*
- *Volumes of water allocated to any other users also held in the above accounts;*
- *Following completion of the pipeline, volume and timing of water transferred to the Sugarloaf Reservoir; and if any water savings projects are deemed to be compliant with the EPBC Act without being referred, detailed information on how that conclusion was reached.*

Goulburn-Murray Water manages Allocation Bank Accounts (ABAs) for the three metropolitan retail water corporations in Melbourne (the Retailers). Melbourne Water has been delegated the authority to order water from these ABAs on behalf of the Retailers. The ABAs which are linked to the Sugarloaf Pipeline diversion on the Goulburn River are:

- ABA065907

- ABA062873

Section 3.1 below summarises the water savings allocated to the Sugarloaf Pipeline via the ABAs. The Water Savings Audit Reports provided in Appendices E and F contain details on the source, volume and timing of the water to be accrued to these accounts.

Information on the volume and timing of any water released for supply to Melbourne via the Sugarloaf Pipeline is provided in Section 3.2.

No water held in the above accounts has been allocated to any other users.

As per Melbourne Water's letter to DEWHA dated 23 December 2009, all sources of water are considered to comply with the EPBC Act. No additional sources of water have been allocated for extraction to the Sugarloaf Pipeline.

3.1 Water Savings Audited & Allocated to Melbourne

Independent audits of water savings achieved in 2009/2010 have been undertaken and copies of the Audit Reports are provided in Appendices E and F of this report. The Audit Reports present the actual volume of water savings achieved for the 2009/10 irrigation season (referred to as Phase 3 savings) as well as long-term average LTCE water savings (referred to as Phase 4 savings), in accordance with the Victorian Government's Water Savings Protocols for calculating, applying and allocating water savings generated from irrigation modernisation projects, a copy of which is available at: <http://www.ourwater.vic.gov.au/programs/irrigation-renewal/water-savings-protocol>.

For the purposes of determining allocations to Melbourne:

- Water savings from three irrigation modernisation projects have been audited – the CG1234 Modernisation Project, the Shepparton Modernisation Project and Stage 1 of the Northern Victoria Irrigation Renewal Project (NVIRP).
- Goulburn-Murray Water, Melbourne Water and the Retailers have entered into an agreement under section 124(7) of the *Water Act 1989* (Vic) for the supply of a share of water savings from irrigation modernisation projects to Melbourne via the Sugarloaf Pipeline – the *Water Savings Supply and Transfer Agreement*. This agreement is a primary entitlement under clause 7 of the *Bulk Entitlement (Eildon-Goulburn Weir) Conversion Order 1995*, as amended. The water savings to which this agreement relates are water savings from the CG1234 Modernisation Project and the Shepparton Modernisation Project up until 30 June 2010, and water savings from Stage 1 of NVIRP.
- It is the actual volume of water savings (Phase 3 savings) that will be allocated for use.
- 14,527 ML of savings from the Shepparton Modernisation Project have already been allocated to the *Environmental Entitlement (Goulburn System - Living Murray) 2007* in accordance with the terms and conditions of this entitlement, and so the balance of 7,924 ML remains available for allocation to Melbourne.
- The unallocated share of the total volume of savings achieved from these projects in 2009/10, together with savings already allocated to Melbourne, total more than 75,000 ML and so, a share of the savings over and above 75,000 ML will be allocated to the three beneficiaries of Stage 1 of NVIRP - irrigators, the environment and Melbourne (refer Table 1 below).
- The process of allocating Melbourne's share of the water savings achieved in 2009/10 to the Retailers ABAs has not yet been completed and so, this share of water savings is not yet available for supply to Melbourne via the Sugarloaf Pipeline. It is expected that this process will be complete by end December 2010.

In addition to water savings achieved in 2009/10, water from a number of other sources has been allocated for supply to Melbourne via the Sugarloaf Pipeline. These sources are summarised in Table 1 below, and details of these sources – including compliance with Condition 11 of the EPBC Approval Decision for Sugarloaf Pipeline – were provided by Melbourne Water in its letter to DEWHA dated 23rd December 2010. DEWHA subsequently accepted the advice of the independent auditor that this water fulfils the requirements of Condition 11 of the EPBC Approval Decision for the Sugarloaf Pipeline, as confirmed in its letter dated 14th January 2010.

Table 1: Water savings

SOURCE OF WATER	VOLUME (ML)
Goulburn Water Quality reserve savings for 2009/10**	10,000
Wimmera Mallee pipeline savings for 2008/09	10,800
CG1234, Shepparton & NVIRP Stage 1 audited savings for 2008/09*	6,909
Goulburn Water Quality reserve savings for 2010/11**	10,000
CG1234 audited savings for 2009/10*	5,674
Shepparton audited savings for 2009/10* - unallocated share	7,924
NVIRP Stage 1 audited savings for 2009/10*	24,262
Sub-total	75,569
Less additional NVIRP Stage 1 audited savings for distribution to three beneficiaries of NVIRP Stage 1	569
Sub-total	75,000
Plus share of additional NVIRP Stage 1 audited savings for distribution to Melbourne as one of three beneficiaries from NVIRP Stage 1	189.6
TOTAL	75,189.6

* Note water savings made in one irrigation season are not audited and allocated until following irrigation season, in accordance with Water Savings Protocols.

**10 000 ML of water for two financial years has been reserved specifically for Melbourne from other measures. On 28 June 2009, the Victorian Minister for Water, under Section 33 AAA(1) of the Victorian Water Act, approved a temporary qualification of rights in the Goulburn Water System, so that 10 000 ML of the 30,000 ML of water available each year to make additional releases to maintain water quality in the Goulburn River and Broken Creek, in accordance with clause 12.3 (d) of the *Bulk Entitlement (Eildon-Goulburn Weir) Conversion Order 1995*, must be reserved for the purpose of supply to Melbourne.

***The temporary qualification of rights also suspended the obligation of Goulburn-Murray Water to supply from the Goulburn Water System up to 24,000 ML to Grampians Wimmera Mallee Rural Water Corporation in every second year, and up to 2,000 ML in every year, for the purpose of supply to the Wimmera Mallee Waterways District, in accordance with Schedule 3 of the *Bulk Entitlement (Eildon-Goulburn Weir) Conversion Order 1995*. The temporary qualification set aside the volume of water that would have been supplied under this obligation in 2008/09 for the purpose of urban supply requirements, given that early completion of the Wimmera Mallee Pipeline meant this obligation no longer needed to be met. The volume of water that was set aside by Goulburn-Murray Water for this purpose was 10,800 ML and this water was approved by the Minister for Water for supply to Melbourne.

It should be noted that the Retailers are able to carryover water from one year to the next, subject to the same rules that apply to all entitlement holders that carryover water in Northern Victoria, including deduction of a standard 5% for evaporation losses.

Table 2 below summarises the water available in the 2010/2011 year, taking into account the savings that have already been used and the deduction for evaporation losses.

Table 2: Water Available for 2010/2011

SOURCE OF WATER	VOLUME (ML)
Total savings	75,189.6
Less water used in 2009/2010	16,713
Subtotal	58,476.6
Less standard evaporation losses (calculated on 1 July 2010)*	550
TOTAL remaining available to be pumped in 2010/2011	57,926.6

*5% of the water stored in Lake Eildon on 1 July 2010. The water stored in Lake Eildon at this time was the total of the first three lines of Table 1 above, less the water used as at 30 June 2010 (i.e. 10,000 + 10,800 + 6,909 – 16,713 = 10,996).

3.2 Water Savings Released & Supplied to Melbourne

Water was first pumped from the Goulburn River for initial testing of the Sugarloaf Pipeline on 14 December 2009 and the pipeline was officially connected to Melbourne on 5 February 2010.

Condition 11 of the *Environment Protection and Biodiversity Conservation Approval (EPBC Approval)* specifies the rates, volumes and sources of water that can be extracted from the Goulburn River and transferred via the Sugarloaf Pipeline for Melbourne. Condition 11, inclusive of clarified reporting timeframes, states:

11. To protect EPBC listed fish species (Trout Cod (Maccullochella macquariensis), Murray Cod (Maccullochella peelii), and Macquarie Perch (Macquaria australasica)) that occur or may occur in the Goulburn River, the Melbourne water extracted to the Sugarloaf Pipeline must be:

- a. not more than 75 GL in any period of 12 calendar months beginning on 1 July in any year and ending on 30 June in the following year;*
- b. not more than 360 ML per day, with any variation in this daily pumping rate limited to a maximum of 200 ML to minimise the rise and fall in river levels upstream and downstream of the river off-take structure;*
- c. met only through controlled, pre-ordered releases from Melbourne's share of the water savings allocated to it pursuant to any bulk entitlement issued under the Victorian Water Act 1989;*
- d. sourced from savings not allocated to the Living Murray Initiative or the Waters for Rivers; and*
- e. zero if the necessary regulated releases are for the maintenance of environmental flows or materially deplete water stored in Eildon Weir that is designated as being an environmental reserve.*
- f. All water savings taken from the Goulburn River must be sourced from projects that comply with the requirements of the Environment Protection and Biodiversity Conservation Act 1999.*

This section describes Melbourne Water's compliance with these conditions for two reporting periods; from 1 July 2009 to 30 June 2010 (first 12 months under the clarified reporting timeframes) and from 1 December 2009 to 30 November 2010 (first 12 months that the Sugarloaf Pipeline was operational). Both periods are included in this report to address uncertainty in the reporting timeframes that existed prior to clarification of Condition 11(a). Future reports will only be for the period 1 July to 30 June.

3.2.1 Compliance Reporting: 1 July 2009 to 30 June 2010

Summary

The Sugarloaf Pipeline was operated in compliance with Condition 11 of the *Environment Protection and Biodiversity Conservation Approval (EPBC Approval)* for the period 1 July 2009 to 30 June 2010, with the exception of Condition 11(b) on one occasion.

The maximum permissible variation in daily pumping rate of 200 ML/day under Condition 11(b) of the *EPBC Approval* was exceeded on 1 May 2010 with an actual reduction of 318 ML/day. Details are provided below.

Table 3: Summary of compliance for the period 1 July 2009 to 30 June 2010

Condition	Description	DEWHA Compliance
11.a	not extract more than 75 GL in any financial year	✓
11.b.i	not extract more than 360 ML in any one day	✓
11.b.ii	limit variation of extraction to not more than 200 ML/day	*✗
11.c. i	only extract controlled, pre-ordered releases	✓
11.c. ii	only extract water from Melbourne's share of water savings	✓
11.d	not extract water from the <i>Living Murray Initiative</i> or the <i>Water for Rivers</i>	✓
11.e	not deplete water designated in the environmental reserve	✓
final statement	water sourced from projects that comply with the EPBC Act 1999	✓

* For the period 1 July 2009 to 30 June 2010 there was a non-compliance event on 1 May 2010

Condition 11(a)

The Melbourne water extracted to the Sugarloaf Pipeline must be not more than 75 GL in any period of 12 calendar months beginning on 1 July in any year and ending on 30 June in the following year.

Melbourne Water has complied with this condition for the period 1 July 2009 to 30 June 2010, extracting a total of 16.7 GL over this period.

It is worth noting Melbourne Water updated its storage reporting from 1 July 2010 to reflect water allocated to Melbourne in Lake Eildon via the Sugarloaf Pipeline Project. As at 29 November 2010, a total of 37.7 GL had been allocated to Melbourne (refer first four line items of Table 1).

Condition 11(b)

The Melbourne water extracted to the Sugarloaf Pipeline must be not more than 360 ML per day, with any variation in this daily pumping rate limited to a maximum of 200 ML to minimise the rise and fall in river levels upstream and downstream of the river off-take structure.

The Sugarloaf Pipeline was operated in compliance with the 360 ML per day condition for the period 1 July 2009 to 30 June 2010. The maximum daily pumping rate occurred during the changeover from daylight saving on 4 April 2010 when 372 ML was measured for the 25 hours to 8am. This corresponds to 357 ML over 24 hours.

The maximum permissible variation in daily pumping rate of 200 ML/day was exceeded on 1 May 2010 with an actual reduction of 318 ML/day. This was due to an unexpected equipment failure suddenly shutting down Sugarloaf Pipeline transfers. Maintenance work was undertaken during the planned shutdown period in August 2010, particularly the replacement of the outlet control valve which regulates outflows from the pipeline. These works are expected to significantly reduce unplanned outages of the Sugarloaf Pipeline in future and were outlined in a media release from Melbourne Water on 18 May 2010.

Condition 11(c)

The Melbourne water extracted to the Sugarloaf Pipeline must be met only through controlled, pre-ordered releases from Melbourne's share of the water savings allocated to it pursuant to any bulk entitlement issued under the Victorian Water Act 1989.

The Sugarloaf Pipeline was operated in compliance with this condition for the period 1 July 2009 to 30 June 2010. For this period, G-MW records indicate that Melbourne Water ordered a total volume of 22.6 GL from the metropolitan Retailers' Allocation Bank Account from Lake Eildon, with G-MW actually releasing 24.4 GL. Melbourne Water diverted 16.7 GL of this released volume from the Goulburn River at Killingworth to the Sugarloaf Pipeline. The disparity between the volume ordered and pumped was due to unscheduled outages mentioned above, which were exacerbated by the two day lag time between orders and releases from Lake Eildon

As per Goulburn-Murray Water's policy for supplying its customers, water released from Lake Eildon by Melbourne Water but not diverted to the Sugarloaf Pipeline was not debited from the metropolitan Retailer's Account. Instead, it was recaptured by Goulburn-Murray Water downstream at Waranga Basin and used to supply other customers.

All water diverted to the Sugarloaf Pipeline over this period has been taken from Melbourne's share of the water savings. This water has been sourced from a number of water saving initiatives that are documented in a letter from Melbourne Water to DEWHA dated 23rd December 2009. Independent reports (dated 14/12/09 & 21/12/09) supplied by Melbourne Water to DEWHA as an attachment to that letter confirm that the sources of Melbourne's share of water comply with the EPBC Approval.

Melbourne Water places orders with G-MW for water from Lake Eildon at least two days in advance (effectively 3 days) of the diversion date. The orders are placed with G-MW either through their 'WaterLine Online' system or by telephone. In the event of a planned outage Melbourne Water must give G-MW at least 2 days notice (effective 3 days) that a water order needs to be cancelled or amended. The process of ordering water has been complied with over the period 1 July 2009 to 30 June 2010.

In the event of unplanned outages of the pipeline the ordering process acknowledges that Melbourne Water may be unable to give this two days notice. There were occasions where unplanned outages, such as mechanical failures, prevented Melbourne Water from being able to give two days notice. Any water released from Lake Eildon and not diverted to the Sugarloaf Pipeline was recaptured at Waranga Basin.

Condition 11(d)

The Melbourne water extracted to the Sugarloaf Pipeline must be sourced from savings not allocated to the Living Murray Initiative or the Waters for Rivers.

The Sugarloaf Pipeline was operated in compliance with this condition for the period 1 July 2009 to 30 June 2010. The water diverted from the Goulburn River to the Sugarloaf Pipeline has been allocated to Melbourne's share of Lake Eildon from a number of water saving initiatives that are documented in a letter from Melbourne Water to DEWHA dated 23rd December 2009. Independent reports (dated 14/12/09 & 21/12/09) supplied by Melbourne Water to DEWHA as an attachment to that letter confirm that the sources of Melbourne's share of water comply with the EPBC Approval.

Condition 11(e)

The Melbourne water extracted to the Sugarloaf Pipeline must be zero if the necessary regulated releases are for the maintenance of environmental flows or materially deplete water stored in Eildon Weir that is designated as being an environmental reserve.

The Sugarloaf Pipeline was operated in compliance with this condition for the period 1 July 2009 to 30 June 2010. All water diverted to the Sugarloaf Pipeline over this period has been taken from Melbourne's share of the water savings and has not depleted Lake Eildon's environmental reserve. This water has been sourced from a

number of water saving initiatives that are documented in a letter from Melbourne Water to DEWHA dated 23rd December 2009. Independent reports (dated 14/12/09 & 21/12/09) supplied by Melbourne Water to DEWHA as an attachment to that letter confirm that the sources of Melbourne's share of water comply with the *EPBC Approval*.

Since the commencement of the operation of the pipeline, the minimum daily passing flow recorded in the Goulburn River at Killingworth (while pumping) has been 1,086 ML/day (6 May 2010).

All water savings taken from the Goulburn River must be sourced from projects that comply with the requirements of the Environment Protection and Biodiversity Conservation Act 1999.

The Sugarloaf Pipeline was operated in compliance with this condition for the period 1 July 2009 to 30 June 2010. All water diverted to the Sugarloaf Pipeline over this period has been sourced from a number of water saving initiatives that are documented in a letter from Melbourne Water to DEWHA dated 23rd December 2009. Independent reports (dated 14/12/09 & 21/12/09) supplied by Melbourne Water to DEWHA as an attachment to that letter confirm that the sources of Melbourne's share of water comply with the requirements of the *Environment Protection and Biodiversity Conservation Act 1999*.

3.2.2 Compliance Reporting: 1 December 2009 to 30 November 2010

Summary

Sugarloaf Pipeline operations for the period 1 December 2009 to 30 November 2010 complied with the aspects of Condition 11 of the *Environment Protection and Biodiversity Conservation Approval (EPBC Approval)* with the exception of Condition 11(b) on two occasions.

The non-compliance with Condition 11(b) on 1 May 2010 is detailed above in Section 3.2.1.

On 8 September 2010, Melbourne Water ceased pumping (from 300 ML/day) to help balance water harvesting rates across its system, especially into Sugarloaf Reservoir where flows from the pipeline join flows from the Yarra River and Maroondah Reservoir. Details are provided below.

Table 4: Summary of compliance for the period 1 December 2009 to 30 November 2010

Condition	Description	DEWHA Compliance
11.a	not extract more than 75 GL in any financial year	✓
11.b.i	not extract more than 360 ML in any one day	✓
11.b.ii	limit variation of extraction to not more than 200 ML/day	✗*
11.c. i	only extract controlled, pre-ordered releases	✓
11.c. ii	only extract water from Melbourne's share of water savings	✓
11.d	not extract water from the <i>Living Murray Initiative</i> or the <i>Water for Rivers</i>	✓
11.e	not deplete water designated in the environmental reserve	✓
final statement	water sourced from projects that comply with the EPBC Act 1999	✓

* For the period 1 December 2009 to 30 November 2010 there were non-compliance events on 1 May 2010 and 8 September 2010

Condition 11(a)

The Melbourne water extracted to the Sugarloaf Pipeline must be not more than 75 GL in any period of 12 calendar months beginning on 1 July in any year and ending on 30 June in the following year.

In accordance with the letter from Melbourne Water to DEWHA on August 27 2010, Melbourne Water will also report against the volume of water extracted to the Sugarloaf Pipeline for the previous 12 month period (December 2009 to November 2010). Melbourne Water has complied with this condition, extracting a total of 24.2 GL over this period.

As noted earlier, Melbourne Water updated its storage reporting from 1 July 2010 to reflect water allocated to Melbourne in Lake Eildon via the Sugarloaf Pipeline Project. As at 29 November 2010, a total of 37.7 GL had been allocated to Melbourne (refer first four line items of Table 1).

Condition 11(b)

The Melbourne water extracted to the Sugarloaf Pipeline must be not more than 360 ML per day, with any variation in this daily pumping rate limited to a maximum of 200 ML to minimise the rise and fall in river levels upstream and downstream of the river off-take structure.

The Sugarloaf Pipeline was operated in compliance with the 360 ML per day condition for the period 1 December 2009 to 30 November 2010. The maximum daily pumping rate occurred during the changeover from daylight saving on 4 April 2010 when 372 ML was measured for the 25 hours to 8am. This corresponds to 357 ML over 24 hours.

For the period 1 December 2009 to 30 November 2010, Sugarloaf Pipeline operations were non-compliant on two occasions with the condition limiting the variation in daily pumping rate to a maximum of 200 ML per day.

The first non-compliance due to the sudden, unplanned shutdown of the pipeline that occurred on 1 May 2010 that was beyond operational control is detailed above in Section 3.2.2.

The second non-compliant event occurred on 8 September 2010 when Melbourne Water decided to cease pumping (from 300 ML/day) to help balancing harvesting rates across its system in the face of heavy rain.

As the flow in the Goulburn River was very high at this time, Melbourne Water expected that the resultant fluctuations in river level would have had minimal impact on river health. The Goulburn-Broken Catchment Management Authority subsequently advised Melbourne Water that the ramp-down protocols should still be implemented under these circumstances. Melbourne Water will implement GBCMA's subsequent advice that the ramp-down protocols should be adhered in these situations.

Condition 11(c)

The Melbourne water extracted to the Sugarloaf Pipeline must be met only through controlled, pre-ordered releases from Melbourne's share of the water savings allocated to it pursuant to any bulk entitlement issued under the Victorian Water Act 1989.

The Sugarloaf Pipeline was operated in compliance with this condition for the period 1 December 2009 to 24 November 2010. For this period, G-MW records indicate Melbourne Water ordered a total volume of 31.4 GL from the Retailers' Allocation Bank Account from Lake Eildon, with G-MW actually releasing 33.1 GL. Melbourne Water diverted 24.2 GL of this released volume from the Goulburn River at Killingworth to the Sugarloaf Pipeline.

As per Goulburn-Murray Water's policy for supplying its customers, water released from Lake Eildon by Melbourne Water but not diverted to the Sugarloaf Pipeline was not debited from the metropolitan Retailer's Account. Instead, it was recaptured by Goulburn-Murray Water downstream at Waranga Basin and used to supply other customers.

All water diverted to the Sugarloaf Pipeline over this period has been taken from Melbourne's share of the water savings. This water has been sourced from a number of water saving initiatives that are documented in a letter from Melbourne Water to DEWHA dated 23 December 2009. Independent reports supplied by Melbourne Water to DEWHA (14/12/09 & 21/12/09) confirm that the sources of Melbourne's share of water comply with the *EPBC Approval*.

Melbourne Water places orders with G-MW for water from Lake Eildon at least two days in advance (effectively 3 days) of the diversion date. The orders are placed with G-MW either through their 'WaterLine Online' system or by telephone, and in the event that a water order needs to be cancelled or amended, Melbourne Water must give G-MW at least 2 days notice (effective 3 days). This process of ordering water has been complied with over the period 1 December 2009 to 24 November 2010.

Condition 11(d)

The Melbourne water extracted to the Sugarloaf Pipeline must be sourced from savings not allocated to the Living Murray Initiative or the Waters for Rivers.

The Sugarloaf Pipeline was operated in compliance with this condition for the period 1 December 2009 to 30 November 2010. The water diverted from the Goulburn River to the Sugarloaf Pipeline has been allocated to Melbourne's share of Lake Eildon from a number of water saving initiatives that are documented in a letter from Melbourne Water to DEWHA dated 23rd December 2009. Independent reports (dated 14/12/09 & 21/12/09) supplied by Melbourne Water to DEWHA as an attachment to that letter confirm that the sources of Melbourne's share of water comply with the *EPBC Approval*.

Condition 11(e)

The Melbourne water extracted to the Sugarloaf Pipeline must be zero if the necessary regulated releases are for the maintenance of environmental flows or materially deplete water stored in Eildon Weir that is designated as being an environmental reserve.

The Sugarloaf Pipeline was operated in compliance with this condition for the period 1 December 2009 to 30 November 2010. All water diverted to the Sugarloaf Pipeline over this period has been taken from Melbourne's share of the water savings and has not depleted Lake Eildon's environmental reserve. This water has been sourced from a number of water saving initiatives that are documented in a letter from Melbourne Water to DEWHA dated 23 December 2009. Independent reports supplied by Melbourne Water to DEWHA (14/12/09 & 21/12/09) confirm that the sources of Melbourne's share of water comply with the *EPBC Approval*.

Since the commencement of the operation of the pipeline, the minimum daily passing flow recorded in the Goulburn River at Killingworth (while pumping) has been 1,086 ML/day (6 May 2010).

All water savings taken from the Goulburn River must be sourced from projects that comply with the requirements of the Environment Protection and Biodiversity Conservation Act 1999.

The Sugarloaf Pipeline was operated in compliance with this condition for the period 1 December 2009 to 30 November 2010. All water diverted to the Sugarloaf Pipeline over this period has been taken from Melbourne's share of the water savings and has not depleted Lake Eildon's environmental reserve. This water has been sourced from a number of water saving initiatives that are documented in a letter from Melbourne Water to DEWHA dated 23rd December 2009. Independent reports (dated 14/12/09 & 21/12/09) supplied by Melbourne Water to DEWHA as an attachment to that letter confirm that the sources of Melbourne's share of water comply with the *EPBC Approval*.

Goulburn Broken CMA Licence

The *Environment Protection and Biodiversity Conservation (EPBC) Approval* for the Sugarloaf Pipeline was issued on 12 September 2008. The Goulburn Broken Catchment Management Authority (GBCMA) subsequently issued a licence on 22 December 2008 for the Sugarloaf Pipeline under the *Water Act 1989* following consideration of an assessment under the *Heritage Rivers Act 1990*.

The GBCMA licence included additional requirements beyond those in the *EPBC Approval*, which were ultimately incorporated into the *Water Savings Supply and Transfer Agreement (WSSTA)* between Goulburn-Murray Water, Melbourne Water and the Retailers.

These conditions are chiefly to ensure the ecological health of the Goulburn River and those conditions concerning river flows, and performance against them, is included in this report in the interests of completeness and transparency. In particular, the *WSSTA* states that water may only be taken from the Goulburn River when passing flows are at least 300 ML/day and the Sugarloaf Pipeline may be operated to increase or decrease the daily diversion rate by up to:

- a. 75 ML per day when the flow in the Goulburn River at Killingworth is between 300 and 799 ML per day
- b. 120 ML per day when the flow in the Goulburn River at Killingworth is between 800 and 1,499 ML per day
- c. 180 ML per day when the flow in the Goulburn River at Killingworth is at least 1,500 ML per day

To help meet these conditions Melbourne Water has worked with the Goulburn River waterway manager (GBCMA) and the Lake Eildon storage operator (Goulburn-Murray Water) to prepare a draft Sugarloaf Pipeline Operating Agreement. Importantly, the draft agreement recognises that unforeseen operational issues (e.g. power outages, equipment failure) can impact river flows and so provides overriding principles for protecting river health under these circumstances. It was agreed that in the event of an unplanned outage:

- The overarching objective of Melbourne Water should always be to act with the intent of minimising any environmental harm to the waterway.
- Melbourne Water may not have an opportunity to enact the 'ramp down' passing flow rules but is to facilitate, to the best of its ability, a smooth ramping down regime.
- If the outage is more than 24 hours, a 'ramp up' regime is to be undertaken as specified above.
- If the outage is less than 24 hours, pumping rates are to return to the rate prior to the interruption.

As expected, during the first 12 months of operating any large new infrastructure, trouble-shooting was undertaken during 2010 as part of the 'running in' of the pipeline. As a result, flow through the pipeline was shutdown automatically on several of occasions in response to various mechanical and electrical faults. Some of these faults were resolved during normal operations, including repairing damage to electrical systems after a major storm in March 2010 and excessive vibration in two of the pipeline's 12 pumps. More significant work was undertaken during the planned shutdown period between May and August 2010, particularly the replacement of the outlet control valve which regulates outflows from the pipeline. These works are expected to significantly reduce unplanned outages of the Sugarloaf Pipeline in future and were outlined in a media release from Melbourne Water on 18 May 2010.

Sugarloaf Pipeline operations did not comply with the Goulburn Broken Licence requirements specified in the *Water Savings Supply and Transfer Agreement* on two occasions:

- On 30 April 2010, the actual 190 ML increase in the daily pumping rate exceeded the 180 ML/day increase allowed under the *WSSTA*. The non-compliance occurred while the Pipeline was being regulated manually due to problems with the outlet control valve. The replacement of the valve in August 2010 has enabled the pipeline's automatic control systems to be used and prevent this type of non-compliance in future.
- On 8 September 2010, Melbourne Water decided to cease pumping (from 300 ML/day) to help balance harvesting rates across its system in the face of heavy rain. As the flow in the Goulburn River was very high at this time, Melbourne Water expected that the resultant fluctuations in river level would have had minimal impact on river health. The Goulburn-Broken Catchment Management Authority subsequently advised Melbourne Water that the ramp-down protocols should still be implemented under these circumstances.

4 Surveys for threatened fauna

4.1 General measures for all Terrestrial Fauna

Several mitigation measures have been undertaken by the Alliance in order to locate and identify any threatened species throughout the construction area of the project before construction commences.

Pre clearance searches are undertaken throughout the area of works before clear and grade commences. Several non-threatened species were identified during this process.

In addition the open trench was inspected for fauna every morning before the commencement of work. Fauna fencing was erected around construction areas as an effective mitigation measure. No animals were found to have entered the trench overnight during the construction phase.

4.2 Woodland Forest and Scattered Tree Habitats

Hollow Bearing Trees and Logs were identified throughout the ROW and monitored to determine whether they were being used as habitat for fauna. Where necessary an exclusion zone was established around habitat trees to ensure they were unaffected by construction. If removal of the trees or logs was required for construction the Alliance undertook nocturnal surveys to determine the presence of fauna. Before the removal of the habitat any fauna present were relocated and additional deterrent measures were implemented. These procedures were undertaken in accordance with the Fauna Mitigation Plan.

After the approval of the EMS and before construction, the Alliance undertook surveillance camera monitoring in Toolangi State Forest and the Sugarloaf Reservoir for the Southern Brown Bandicoot and Spotted Tail Quoll. Neither was found, but a number of locations were identified as high potential for use by Southern Brown Bandicoot.

Bandicoot trapping has been undertaken in the gullies identified within construction area as high quality habitat areas throughout the Toolangi State Forest EMP section. Trapping resulted in the capture of several non-threatened species. No bandicoots were caught during the process.

4.3 Water body Habitats

Nocturnal frog searches and examination of discrete water body habitats were undertaken before dewatering of the water body. Pre-clearance searches for water birds within water body habitats were undertaken at the same time as the frog pre-clearance searches. No water birds considered to be at risk were identified during these searches.

A Brown Toadlet (*Pseudophryne bibroni*) was identified within the farm dam on property #103 in the Glenburn EMP Section. This species is listed as threatened under the FFG Act, but not the EPBC Act. After consultation with DSE, the agreed future course of action involved the retention of this water body, installation of fauna-proof fencing around its boundary for the duration of construction and placement of additional habitat features (including woody debris) around the edge of this water body. Monitoring of the Brown Toadlet and the water body habitat will be undertaken in the active season for the species for two years from the date of capture. The first season of Brown Toadlet surveys (in autumn 2010) has been completed, with none found.

Targeted searches were undertaken for the Growling Grass Frog in all **possible** water bodies. Despite no Growling Grass Frog being found actions were implemented to reflect the precautionary approach.

4.4 Grassland Habitats

4.4.1 GSM habitats

The results of GSM monitoring were taken in the 2008/2009 flight season, and summarised in the 2009 annual report to DEWHA.

The Alliance undertook targeted GSM surveys in habitats that had been identified as **possible** GSM grassland habitat. These surveys confirmed the presence of the GSM across most of the Sheoak property and in several properties within the Yea to Devlins Bridge EMP Section. GSM were also found at the Ewing Creek crossing (part of the Waterways Category B EMP), and also along Carey's Rd, which was within part of a Traffic Management Zone for the Killingworth EMP section.

Detail is provided within the Sheoak FMP and Appendix D of the Yea to Devlin Bridge FMP as well as the GSM overarching document.

4.4.2 Striped Legless Lizard Habitats

Striped Legless Lizard surveys were undertaken prior to DEWHA approval, and DEWHA has been previously provided with this data as part of the Project Impact Assessment.

Pre-clearance searches were undertaken immediately prior to commencement of construction in accordance with the Mitigation Plan for the species, with differing measures for **known**, **possible** and **unlikely** SLL grassland habitat. Captured SLL were held at the Melbourne Zoo, ready for release at the appropriate time of the year after the end of construction.

Properties where five or more lizards have been captured or released will be monitored for two years after the completion of construction. Monitoring for SLL will also occur broadly across the Sheoak property for two years. For further detail on monitoring of SLL refer to section 5.2 of this report.

A total of 67 Striped Legless Lizards were located as part of the pre clearance searches and works in the construction areas. The location of their capture has been listed below in Table 5.

Of the 67 lizards located:

- 35 released during active season September/October 2009;
- 2 were released at time of capture (one found amongst asbestos and one at the Sheoak Property);
- 8 were locations of only the tail tip of the SLL;
- 17 dead at time of capture;
- 5 died at Melbourne Zoo.

Table 5: Property number and number of SLL located

EMP SECTION	PROPERTY NUMBER	SLL POPULATION
Yea to Devlin's Bridge	336	2
Yea to Devlin's Bridge	327	15
Yea to Devlin's Bridge	328	29
Sheoak Property	326	6
Yea to Devlin's Bridge	28	7
Yea to Devlin's Bridge	26	1
Yea to Devlin's Bridge	22	2
Killingworth	302.1	4
Killingworth	301	1
Total		67

A map showing the location of captured SLL has been included as Appendix C.

4.5 Aquatic Surveys

A total of 82 fish were collected as part of construction surveys throughout 2009/10, belonging to 10 species. Two-spined blackfish (*Gadopsis bispinosus*) was the most abundant native species sampled within Yea River. Brown Trout was the most abundant exotic species sampled within the Yea River and Carp were the most abundant exotic species recorded in the Goulburn River.

A single Macquarie Perch was recorded at a site downstream of Devlins Bridge in November 2009. The FFG and EPBC listed Barred Galaxias has been recorded in a number of the tributaries of the Yea River which are situated in the Kinglake National Park, but have not been recorded in any of the waterways crossed by the Project.

In excess of 100 Murray Spiny Crayfish (listed as threatened under FFG Act 1988) have been located in the Yea River and during 2009/2010 aquatic surveys and a single 1kg specimen was caught at the Yea Wetlands. The 2010/11 surveys will be completed in December 2011.

5 Management of EPBC Listed Species

The only three EPBC listed species to have been confirmed within the construction area of the final alignment of the Project are GSM, SLL and Matted Flax-Lily.

5.1 Golden Sun Moth

The following monitoring was undertaken for GSM adults and pupa cases during the first post-construction flight season:

- Monitoring of GSM and the recovery of GSM habitat values as part of Habitat Slab Replacement Experiment;
- Monitoring of GSM and the recovery of GSM habitat values as part of Grassland Reinstatement Experiment;
- Monitoring GSM adults and pupal cases in all other **known** GSM grassland habitats intercepted by the Construction Area; and
- Monitoring GSM adults and pupal cases across the broader Sheoak Property.

The proposed monitoring program and methods for the project were developed as a stand-alone document prior to the commencement of the 2009/10 flight season and were generally consistent with the recently released national guidelines for the minimum acceptable standards for persons or organisations undertaking GSM surveys (DEWHA, 2009).

The Habitat Slab Replacement results to date have been variable, with some plots not having any observable pupa cases or adults, and other plots having an average over all visits of over 250 adults.

Surveys of the Grassland Habitat Restoration Project recorded only eight adult GSM at any of the 50 plots during four visits. In contrast, fifty-four GSM were recorded from the ten 'undisturbed control' plots across the four visits.

GSM adult surveys were conducted within the ROW and adjacent property/road reserve during November/December 2009. A total of 272 adult moths (Table 11) were observed during this period. Almost ten times as many GSM individuals were recorded in the adjacent areas (247) compared to the ROW survey areas (25).

A total number of 1879 adult GSMs were observed across the broader Sheoak property (i.e. not including the ROW) during November/December of 2009.

Further details and results of GSM monitoring are included in the reports “Post Construction Golden Sun Moth Monitoring Results 2009 – 2010 Flight Season” and “Golden Sun Moth (*Synemon plana*) Larval and Pupal case identification” which are attached as Appendices B and C. In addition, maps of GSM monitoring surveys are included in the report in Appendix B.

5.2 Striped Legless Lizard

As part of the approvals process for the Sugarloaf Pipeline Project, the Alliance committed to conducting monitoring for SLL during the post-construction phase for a period of two years at the following locations:

- Broadly across the Sheoak property;
- At locations where 5 or more lizards were detected during the course of the project.

A draft monitoring plan was developed by the Alliance. Following further consultation, discussion and revisions, the document was endorsed by DSE.

Monitoring at Sheoak

In late 2009 and early 2010, nine sets of lizards monitoring grids were established broadly across the Sheoak property. Each grid consisted of 50 wooden shelters placed in 5 rows of 10 shelters, with each shelter placed 5 metres from the next nearest shelter. Each shelter comprises a block of wood that is about 30 cm long, 20 cm wide and 7.5-10 cm thick. An additional 2cm x 2cm strip of wood is also placed along one edge of the shelter to raise it from the ground slightly.

These shelters have been checked on three occasions.

- The shelters were all checked by ecologists in May 2010. No SLL were detected, although one sloughed skin in a poor condition (comprising a probable SLL) was detected. Underneath some shelters, a common frog species (*Limnodynastes tasmaniensis*) was detected;
- The shelters were all checked by ecologists in mid-October 2010. No SLL or other vertebrate fauna species were detected underneath the shelters;
- The shelters were all checked by ecologists in mid-November 2010. No SLL were detected underneath the shelters. Two small skinks were seen basking on top of two shelters but disappeared into nearby grasslands upon approach by the ecologists.
- Further checks of these shelters occurring broadly across the Sheoak property are to occur in December 2010, and on four occasions through 2011 (May-June, October, November, December). A full report will be prepared at the conclusion of the two years monitoring.

Monitoring at other properties

In late 2009 and early 2010, lizard monitoring grids were established within (and immediately adjacent to) the reinstated construction area at seven locations where five or more lizards had been detected during the course of the project. This included one grid on properties 302.1, 26/28 and 326, and two grids on each of 327 and 328. As per the Sheoak property, each grid comprises 50 evenly spaced wooden shelters. For the first three properties listed above, half of the shelters were placed in land that had been directly affected by construction, and the remainder were placed in the same property but within immediately adjacent areas that were not directly affected by the construction process. For the latter two properties, half of the shelters were placed in the land directly affected by construction, and the other half were placed in the immediately adjacent roadside reserve alongside the Melba Highway.

These shelters have been checked on three occasions. In summary:

- Small numbers of a common frog species (*L. tasmaniensis*) were detected under shelters in both the former construction area and adjacent undisturbed areas during the May 2010 check of the shelters;
- Small numbers of skinks (mostly Garden Skinks *Lampropholis guichenoti*) were detected underneath numerous shelters across most properties during the October 2010 check of the shelters, and at property 26/28 during the November 2010 check of the shelters;

- No other vertebrate fauna were detected during the October 2010 and November 2010 check of the shelters, although snakes were observed in close proximity on two occasions.

In addition:

- Following heavy rainfall and flooding through late winter and early spring, 14 of the shelters at property 26/28 were found to have washed away prior to the October 2010 checks. Another 10 shelters were found but had been washed out of position. Following the November 2010 checks of the remaining shelters at this location, all of the shelters were moved nearby to slightly higher ground, and new shelters were installed to replace those that had been lost;
- In September 2010, there was an unanticipated need to undertake emergency resowing of bare land where reinstatement had not been successful (on a very small scale). This included some areas on property 328, which were in close proximity to some of the shelters. An ecologist checked these shelters prior to the commencement of resowing. No SLL or other fauna were detected in the shelters occurring adjacent to the resowing, but one SLL was detected underneath a shelter in the adjacent roadside area. Appropriate details were documented for the lizard (while on site), and it was then released;
- Slashing of grasses along roadsides has resulted in the loss of ten shelters at 302.1 and 1-2 shelters elsewhere. New shelters have been placed in nearby locations less likely to be damaged by future roadside slashing.

Further checks of all of these shelters occurring in locations where five or more SLL were detected during the course of the project are to occur in December 2010, and on four occasions through 2011 (May-June, October, November, December). A full report will be prepared at the conclusion of the two years monitoring.

In early 2010, reinstatement personnel from the Alliance noted that there was a need for re-sowing of grass species in many areas along the pipeline alignment where vegetation had failed to re-establish. Following discussions between Alliance ecologists and DSE, it was recognised that there were risks to SLL from this reinstatement process (which was proposed to involve both loosening of the soil crust and using micro-ploughs to release grass seeds into the bare areas). Following further consultation between the Alliance and DSE, a procedure was prepared by the Alliance to the satisfaction of DSE, which involved the modification to the proposed techniques and also on-site observation of the process by Alliance ecologists in areas of known and possible SLL habitat. This process occurred during April and May 2010 over a number of days, and the agreed techniques were implemented. No Striped Legless Lizards or other vertebrate fauna were detected during this process.

5.3 Matted Flax-lily

Matted Flax-lily has been recorded in at least 18 different sites/properties within the survey corridors, with a total of at least 41 discrete patches. The distribution of this species is strongly linked with road reserves and public land within the broader Yarra Glen area, with two outlying occurrences near Yea.

The construction ROW has impacted the following areas supporting Matted Flax-lily:

- Maroondah Aqueduct (4 patches between Steels Creek Road and Gulf Road);
- Gulf Road (3 patches in road reserve);
 - 1 patch immediately adjacent to Maroondah Aqueduct access track entrance point;
 - 1 patch on northern side of road reserve, immediately east of a row of exotic trees;
 - 1 patch on steep northern roadside embankment, east of aqueduct and west of Melba Highway;
- Glenview Road (1 patch on west side of road reserve, north of Yarraview Road);

In addition the following patch has been impacted though it was not within the ROW and is included in this document:

- Melba Highway (1 patch on west side of road reserve, south of Hunts Lane).

Impact sites were surveyed in February 2009 with detailed results provided in the Matted Flax-Lily translocation agreement. Maps showing the location of MFL patches throughout the project have been included as Appendix D.

Translocation of Impacted Matted Flax-lily Patches

Impacted patches of Matted Flax-lily were removed in April 2009 under the supervision of an expert in the biology of Matted Flax-lily, Mr Geoff Carr. Mr Carr was recommended by DSE for his knowledge of the biology of Matted Flax-lily.

The removed Matted Flax-lily was transported to the Buxton Zoo Nursery which specialises in the growth of indigenous species. The plants were individually labelled, potted and grown on. They were transplanted into the receptor site in autumn 2010.

The receptor site for the MFL is located within the Maroondah Aqueduct close to the positions of Patches 1 to 4 (discussed above). The site covers an area of 120 x 3 m, and is situated along the southern boundary fence line of the aqueduct, between the Sugarloaf Pipeline access track and the fence line. The site was fully cleared during pipeline construction but was reinstated with stored topsoil, and then replanted with a locally indigenous species mix. This section of the aqueduct is known to support MFL as shown by the persistence of the species in this area prior to the construction of the Sugarloaf Pipeline.

A Matted Flax-lily Translocation Commitment has been developed by the Alliance in consultation with DEWHA, DSE and Melbourne Water and has been endorsed. This Commitment is a detailed discussion of the translocation requirements and ongoing management actions to help facilitate the ongoing survival of this species over a five year period at the receptor site.

Melba Hwy Patch (Patch 8)

Patch 8 is located within a patch of remnant vegetation on the west side of the Melba Highway.

A portion of this patch was removed without authorisation in March 2009 and was identified in the 2008/2009 Annual report to DEWHA. In agreement with DSE and DEWHA the plants collected without authorisation were returned to their patch. The patch is considered likely to persist at the current location, based on monitoring to July 2009 and advice from MFL Specialist Geoff Carr. This patch will continue to be monitored as part of the endorsed monitoring program.

Monitoring

Monitoring of the translocated Matted Flax-lily has commenced. The monitoring report "Matted Flax-lily (*Dianella amoena*) Translocation: Monitoring Autumn/Winter 2010" is attached in Appendix G.

6 Conclusion

The Sugarloaf Pipeline Alliance and Melbourne Water have implemented actions and adhered to the conditions placed on the Project by the Federal Minister for the Environment, Heritage and the Arts, with the exception of two breaches of condition 11(b).

The pipeline began operating on 5 February 2010, and as expected during the first 12 months of operating any large new infrastructure, comprehensive testing and trouble-shooting was undertaken. As a result, flow through the pipeline was shutdown automatically in response to mechanical and electrical faults, and on 1 May this resulted in a decrease in the daily pumping rate of more than 200ML. The mechanical failure which led to this breach has now been rectified. The second breach occurred when Melbourne Water ceased pumping on 8 September to help balance water harvesting rates across it's system. Again, this resulted in a decrease in the daily pumping rate of more than 200ML. Procedures have now been put in place to ensure that the 'ramp-down' occurs if the pipeline is shut-down during normal operation in the future.

Three EPBC Listed species have been located in the construction ROW:

- Striped Legless Lizard
- Golden Sun Moth
- Matted Flax-lily

The management of the above species and all other EPBC listed species has been in accordance with the Environmental Management Strategy which has been endorsed by State and Federal Government, except in unexpected situations where adaptive management has been necessary and subsequently approved before implementation.

A large population of SLL was detected, and appropriate measures have been implemented throughout the project. 35 SLL captured on the ROW were released at the appropriate time upon the completion of construction. No SLL have been observed in the monitoring grids to date. Monitoring is to continue to two-years post-construction.

Large populations of GSM have also been detected. Monitoring to date has provided variable results for the different Habitat Replacement Experiment Slab plots, but generally shows evidence of more GSM in these plots than in the Grassland Restoration Project plots. Monitoring of GSM is to continue for two years following construction, and for five years at the Sheoak Property.

Impacted patches of Matted Flax-Lily were removed from areas around Yarra Glen and were translocated to the agreed receptor site in autumn 2010. Monitoring and management measures have been undertaken during 2010.

A number of the EPBC Approval conditions apply primarily to the construction phase of the project. Future Annual reports will focus on monitoring and management of SLL, GSM and Matted Flax-Lily; as well as compliance with the limitations of pipeline operational volumes set out in condition 11.

APPENDICES

APPENDIX A: NONCOMPLIANCE REPORTS RELATING TO EPBC APPROVAL CONDITIONS*

EMP SECTION	Date Raised	ALLIANCE NONCOMPLIANCE REPORT	ALLIANCE RESPONSE
Killingworth	12/10/2009	Works to clean out a waterway between Waterway Crossings 123 and 110 (WX123 & WX110) to prevent upstream flooding of the ROW and the adjacent property were conducted outside of the ROW on property 666. No permit for working in waterways was obtained from GBCMA, and failure to communicate the required works to the Environment Team resulted in no pre-clearance surveys being conducted. Consequently spoil may have been placed on possible Striped Legless lizard (SSL) habitat.	Inspections were carried out and confirmed that there was no impact on Striped Legless Lizard habitat. GBCMA were advised, and following an inspection of the works requested a small amount of rock to be placed at intervals along the drainage line, which was carried out.
Sheoak HLPS	17/08/2009	Property 326 was incorrectly omitted from a list of GSM/SLL properties which was produced independently of the WAPs, and distributed to Supervisors and Superintendants. Consequently a disc plough was used within approximately 100m of known SLL habitat in contravention of the SLL Management Procedure (SPA-PPR-GL-ENV-0021) which states that disc ploughs are not permitted in these areas due to the unacceptable risk of injury or mortality to striped legless lizards.	<p>SEOs and a Wildlife Specialist searched the area for Striped Legless Lizards after the activity occurred. No lizards were found.</p> <p>A Toolbox Meeting was held with all Supervisors to go through the requirement to review WAPs prior to entry to site, and the list was updated to ensure all properties were covered.</p>
Sheoak HLPS	17/08/2009	Property 326 was incorrectly omitted from a list of GSM/SLL properties which was produced independently of the WAPs, and distributed to Supervisors and Superintendants. Consequently Gypsum was applied to approx 100m of Property 326. This property is known GSM habitat, therefore gypsum use requires approval from DSE.	<p>Approval for use of gypsum on SLL and GSM properties was given by DSE on the 20.08.09.</p> <p>A Toolbox Meeting was held with all Supervisors to go through the requirement to review WAPs prior to entry to site.</p>

EMP SECTION	Date Raised	ALLIANCE NONCOMPLIANCE REPORT	ALLIANCE RESPONSE
Sheoak HLPS	23/09/2009	The agricultural contractor re-seeded part of property 326 when it was supposed to be left to regenerate naturally. Re-seeding was carried out in accordance with agreed method for Golden Sun Moth habitat. However, there was a mis-understanding that this property was to be treated differently to all other GSM properties, as property 326 is also SLL habitat and was to form part of a habitat experiment.	Another suitable area was found on the Sheoak property for the tussock experiment to be undertaken. GSM and SLL specialists and the construction reinstatement team were required to meet before any future agricultural reinstatement works on GSM and SLL properties.
Yarra Glen	15/09/2009	A concrete truck was washed out on the roadside, not in accordance with the procedure. Washout water intruded into a threatened flora (<i>Eucalyptus fulgens</i>) "No Go Zone".	The concrete waste was cleaned up under the guidance of an SEO, particularly in the vicinity of the "No Go Zone". All personnel were reminded of the requirements for proper treatment of concrete wastes. The threatened flora was not impacted.

* Non-compliances with Condition 11(b) are not included in the table above but are detailed in Section 3.2.

APPENDIX B: (ATTACHED)
POST CONSTRUCTION
GOLDEN SUN MOTH
MONITORING RESULTS 2009 –
2010 FLIGHT SEASON

APPENDIX C: MAPS OF SLL CAPTURE LOCATIONS

APPENDIX D: MAPS OF MFL LOCATIONS

APPENDIX E: (ATTACHED)
AUDIT OF WATER SAVINGS
NVIRP

APPENDIX F: (ATTACHED)
AUDIT OF WATER SAVINGS
SHEPPARTON AND CENTRAL
GOULBURN 1-4

APPENDIX G: (ATTACHED)
MATTED FLAX-LILY (DIANELLA
AMOENA) TRANSLOCATION:
MONITORING
AUTUMN/WINTER 2010