



COOINDA COTTON CO

24/02/11

Attention: Secretary to the House Standing Committee on Regional Australia – Inquiry into the Impact of the Murray-Darling Basin Plan on Regional Australia

Submission by Mr Scott Armstrong
Managing Director – Cooinda Cotton Co
Email – office@cooindacotton.com.au

Please find following a response I recently received from the Queensland Dept of Environment and Resource Management dated 3rd February 2011 (Appendix 1). This was their response to my application under Round 1 of the Healthy Headwaters Water Use Efficiency Project. Despite my project meeting all the Commonwealth criteria, it was rejected due to the charges that the Queensland Government wholly owned corporation SunWater were to apply to the transaction.

The project, which is attached to this submission as Appendix 2, was to increase the height of an on farm storage to save on the significant seepage and evaporation losses which we currently suffer in the allocations current storage site, Beardmore Dam, owned and operated by SunWater. As the project specifies, half the 89 ML annual water saving was to be transferred to the Commonwealth for the benefit of the environment in return for their funding of the project.

SunWater irrigation charges are regulated by the Qld Government, and the Part A or fixed charges associated with the permanent transfer of irrigation water are regulated federally by the ACCC. Please refer to the ACCC website link for more information. <http://www.accc.gov.au/content/index.php/ml/itemId/862704>

SunWater refuse to disclose what they proposed to charge the commonwealth for this transfer, but that it is significantly above the regulated charge. I believe they have determined any water transferred to the Commonwealth under this project will be classified 'industrial' water, which is not subject to any regulation and thus can charge whatever they like. The charges were obviously so high as to render the project unviable.

SunWater's 3 major schemes (St George, Upper Condamine and Macintyre Brook) hold 95% of all supplemented water in the Qld section of the MDB. Thru adopting this policy, SunWater are effectively blocking 95% of all supplemented water which would be available under this HHWUE Project in Qld, totally blocking access to the project to many of Qld's MDB irrigators who hold scheme entitlements.

I have received no further correspondence as to what steps, if any, the relevant government departments are taking to resolve this impediment to the Commonwealth.

I extend to the Inquiry an invitation to visit the farm to examine details of the project when in St George on the 15th.

Yours Sincerely,

.....
Mr Scott A Armstrong

Appendix 1 - 1 Page

REF# IRR_0261_WKSX

**Queensland
Government**

3 February 2011

Mr Scott Armstrong
Coinda Cotton Co Pty LtdDepartment of
**Environment and Resource
Management**

Dear Mr Armstrong

**Healthy Headwaters Water Use Efficiency project
Application No: IRR_0261_WKS1**

I am writing to advise that your application under Round 1 of the Healthy Headwaters Water Use Efficiency project (HHWUE) has not been approved. I apologise for the delay in formal notification of this decision.

During the assessment process it was determined that your application did not pass the value for money criteria. The value for money criteria is assessed by considering the cost to the Commonwealth of the water savings on a per megalitre basis and the cost of holding the allocation. In this case the Commonwealth have advised that the proposed SunWater charges to the Commonwealth for holding and managing an environmental water entitlement compared with the charges for holding and managing an irrigation water entitlement have made the application fail the Commonwealth's value for money criteria.

Please note that we are working with the Commonwealth towards resolving the issue of holding charges.

As the Commonwealth have advised that their assessment of your application against the other assessment criteria was positive, if the issue is resolved you are encouraged to re-submit your application to the call for applications under Round 2 of the HHWUE project due in March 2011. To assist you in this decision I will advise you when the issue is settled.

Should you have questions about this outcome please do not hesitate to contact me. Alternatively if you would like to discuss the matter with a representative of the Commonwealth Government please contact Sam Roseby of the Department of Sustainability, Environment, Water, Population and Communities

Finally I would like to thank you for your application in Round 1 and your ongoing support and involvement in public meetings and extension activities run under the Healthy Headwaters project.

Yours sincerely

John Ritchie
Program Manager

Appendix 2 - 11 pages

~ Commercial-in-Confidence ~

Healthy Headwaters On Farm Infrastrucutre Investment Tender

Cooinda Cotton Storage Reconfiguration Supporting
Information

Document Number 30150.43439

Prepared for

By

Cooinda Cotton Pty Ltd

WaterBiz

Report No 30150.43439

Document Status Record

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Tender

Project Title: Cooinda Cotton Storage Reconfiguration Supporting Information

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Issue No.	Date of Issue	Author	Checked	Approved
1		Justin Schultz	Tami Mills	Justin Schultz

Signatures

Notes:

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Issue 1 – Final Report

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This document provides information to address the intent of Project Number 30150 as agreed to by Cooinda Cotton Pty Ltd.

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1. Introduction

Cooinda Cotton Operates a property with in the St George Irrigation District known as Sharmarel. The property currently draws water from the channel system as well as having a small storage that is used for collecting tail water and rain fall runoff. The proposal under the Healthy Headwaters program is to increase the size of this storage to allow Cooinda Cotton to store allocation water on farm instead of storing it in Beardmore Dam. Due to the nature of Beardmore Dam, evaporation and seepage losses are large and there can be a difference between the evaporation from Beardmore Dam and an efficient On Farm Storage.

2. Technical Feasibility

The proposed works on the property known as Sharmarel entails the reconfiguration of the storage to increase the capacity from 220 ML to 675 ML. The management of the storage is the key to the water savings. Since the losses from water in Beardmore Dam will be higher then the losses from the on farm storage, the on farm storage must always be full and the allocation water in Beardmore Dam must be used first and transferred into the on farm storage as soon as possible.

To assess the technical feasibility of the project we will look at two sections, the developments feasibility to be constructed and the developments feasibility to achieve the proposed water savings.

Proposed Storage Reconfiguration

Table 1 Existing Storage Size

Existing Configuration	
Total Available Volume at TWL	233 ML
Wall Height	3 m
Average Depth of Available Water at TWL	2 m

The proposed storage reconfiguration aims to create additional volume in the storage to allow the storage of allocation water from Beardmore Dam.

The proposed reconfiguration is as follows:

Table 2 Increase Storage Volume

Existing Configuration	
Total Available Volume at TWL	675 ML
Wall Height	6 m
Average Depth of Available Water at TWL	7 m

2.1 Construction Feasibility

The proposed development is to extend the wall from the existing 3m with an additional 3m of soil to create a 6m wall. The idea of the design is to add to the current wall with out

changing the footprint of the storage. The proposed cross section of the wall will be of the nature of the schematic as in Figure 1.

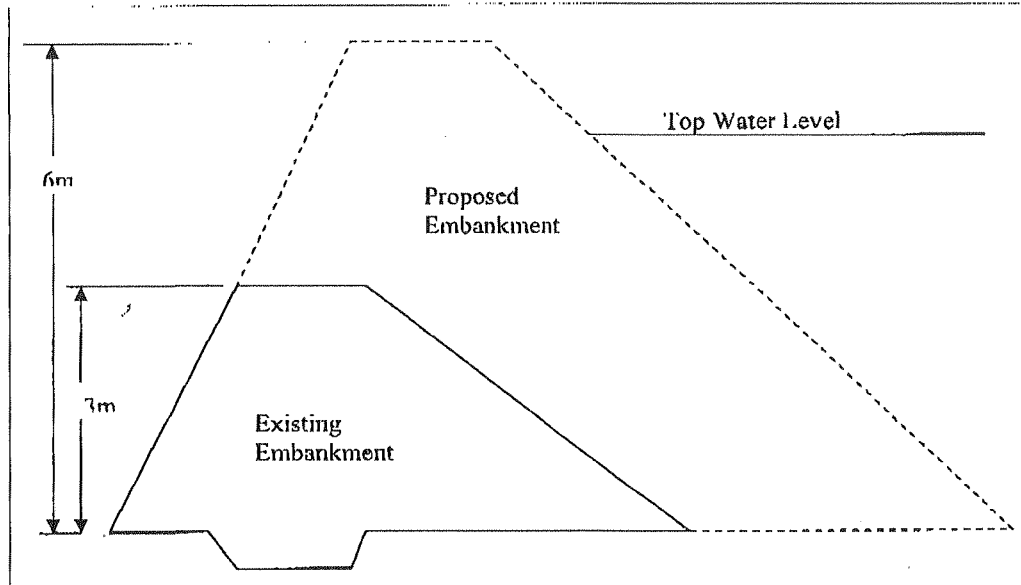


Figure 1 Typical Wall Cross Section

To enable the storage embankment to be enlarged the following process is required

1. Soils investigation to allow for engineering design of embankment and to ensure both structural integrity and minimise risk of seepage losses.
2. Installation of new inlet pipe work
3. Construction of additional embankment material
4. Fitting of installed inlet pipe to existing pump station and discharge works.

Based on the conceptual design and the existing configuration of the pumping unit the proposal is feasible to construct. The primary concern is the depth of soil with in the storage and the available soil for borrow to be used in the new wall. Based on preliminary soils investigation there appears to be sufficient borrow material available to construct the wall.

2.2 Water Savings

Due to the nature of the water allocation at Sharmarel , there is generally a large amount of water stored in Beardmore Dam. As the crops required water, the allocation water is delivered via the gravity channels and applied directly to the crops.

Sunwater operates both Beardmore Dam and the distribution channels and uses an accounting system to distribute the losses to the individual allocation holders. Each day a water balance is conducted and the daily losses are distributed across all entities that have allocation water in the dam. This data is available on a daily bases and forms the basis of the water saving analysis.

Evaporation data for this area is generalised in Figure 2.

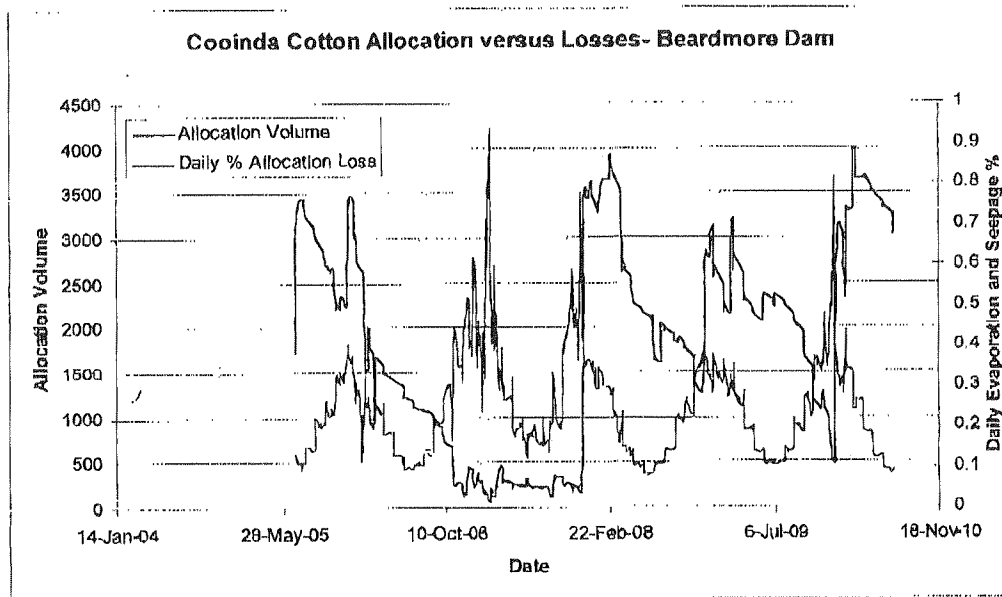


Figure 2 Allocation Volume versus Evaporation losses for 6 years of data

The proposed storage will reduce the amount of allocation water in Beardmore Dam by 600ML, therefore the historical data would then be as Figure 3

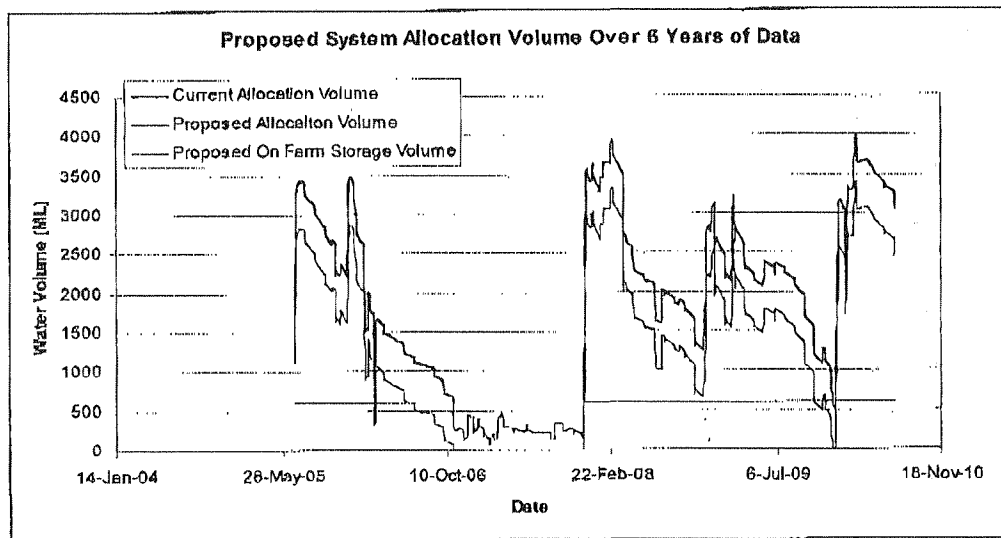


Figure 3 Proposed model of Allocation water volume compared with on farm storage volume.

Based on this model the losses are then reduced from Beardmore Dam, with the additional loss of evaporation from the Storage Evaporation. This model only looks at evaporation losses and assumes transmission losses (losses charged during water delivery) would be the same in both cases, i.e. delivered during the season to a crop or delivered to the storage.

The other assumption the model makes includes:

- Evaporation is a function of E_{T0} and surface area (factor of 1) no account has been made for depth of water or water temperature
- Seepage losses from the on farm storage is 0mm/ day

2.3 Projected Water Savings

Water Savings based on the evaporation model are an average of 190 ML/year. This saving is based around the last 6 years of allocation data supplied and may change into the future depending on water availability and how Sunwater manages and attributes losses with in their delivery frame work.

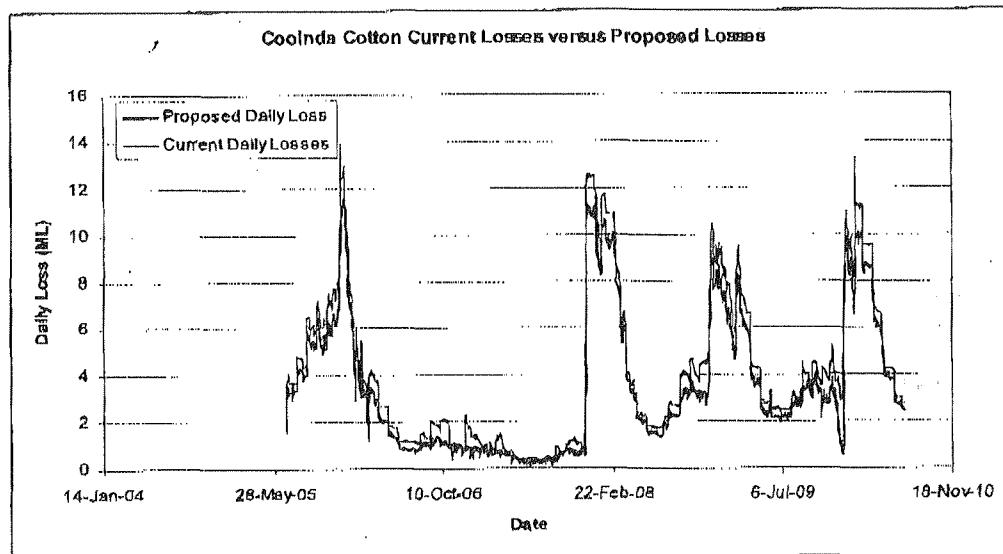


Figure 4 Current Losses versus Proposed Losses

Water Savings	Beardmores Losses	On Storage Losses	Farm Losses	Total Losses
Existing Current Total Losses (6 Years)	7542 ML	-	-	7542 ML
Existing Average Yearly Loss (after reconciliation)	969 ML/year	-	-	969 ML/ Year
Proposed System Total Losses	5754 ML	830 ML	-	6584 ML
Proposed System Average Yearly Losses (after reconciliation)	742 ML/ Year	138 ML/ Year	-	880 ML/Year
Average Yearly Saving				89 ML/ Year

Based on the model, the larger the storage on farm the greater potential for water savings. The evaporation savings occur due to being able to store water on farm at a greater depth of water therefore reducing the surface area available to evaporation. Effectively the same amount of water is stored on farm with less then half the surface area available for evaporation.

3. Major Stages of the Project

The major stages of this Storage cell development include:

1. First Payment Received- of Project First Payment received from the Government-Start
2. Finalize Design- Complete final designs to enable soil testing and tendering of earthworks construction and pipe construction
3. Soils Investigation- Conduct soil testing to assess structural stability and availability of borrow material
4. Pump Design - Conduct design of pipe work and valving to enable operation of the storage as designed
5. Earthworks Set out- Set out of all earthworks for development
6. Earthworks Construction- Construction of all earthworks
7. Pump Pipe Construction- Construct all required pipe work as part of the earthworks process including foundations and all formwork and pipe work.
8. Commissioning- Commission the pipe work and pumps to ensure all constructed works are operating as designed

4. Project Time Line

The proposed time line for the development of the storage reconfiguration is displayed below in Gant format.

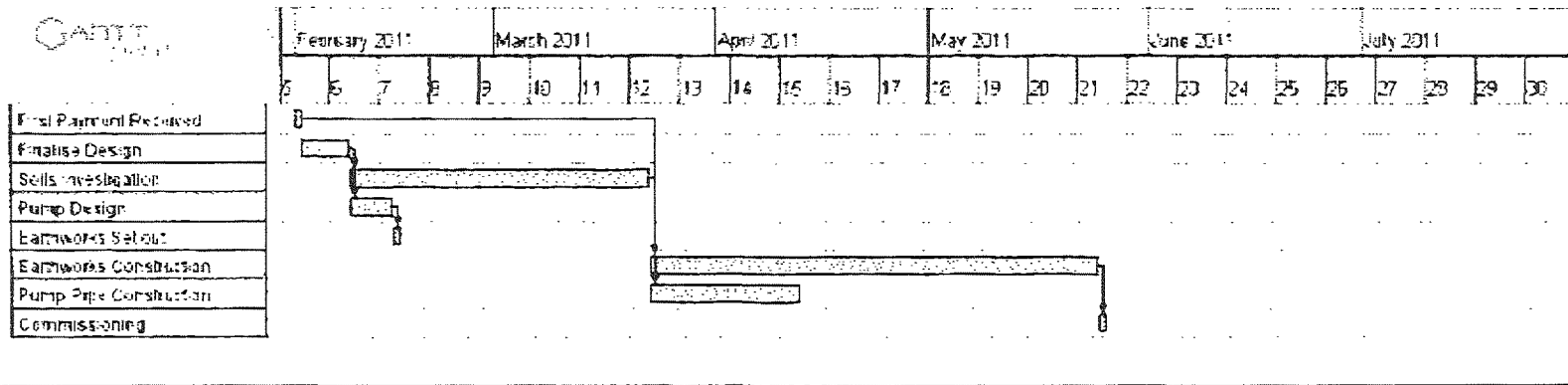


Figure 5 Project Time Line

5. Key Steps of the Project

The key steps for this project are listed in section 1 of this attachment.

6. Project Management and Budget

The management of the project will be between the farm management and an independent consultant/ project management. The irrigation consultant will manage all components of set out and construction to ensure that the contractors are working efficiently and on time. It will be the responsibility of the consultant to ensure that the project is commissioned on time and with in budget.

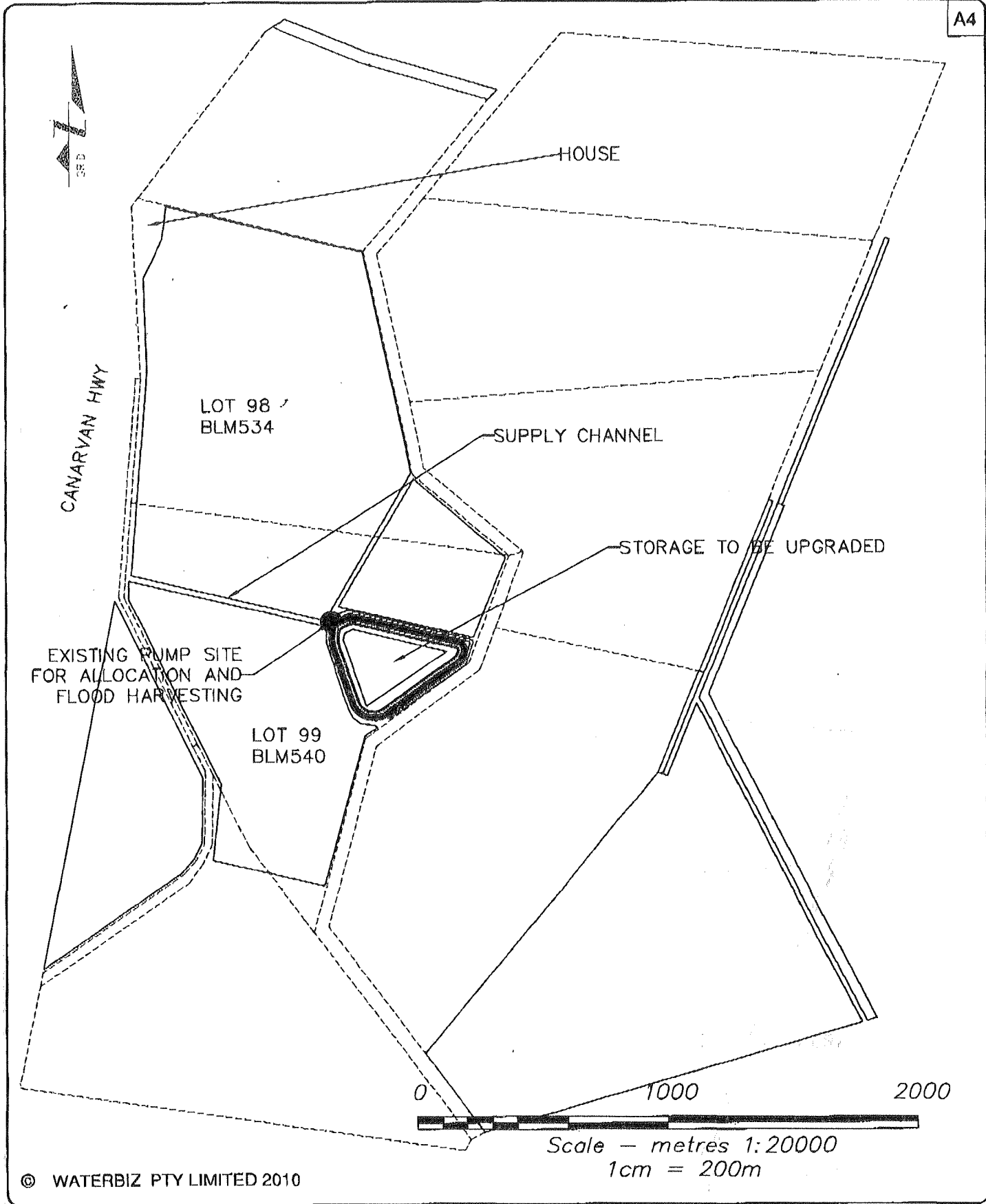
7. Project Budget

The project budget is listed below:

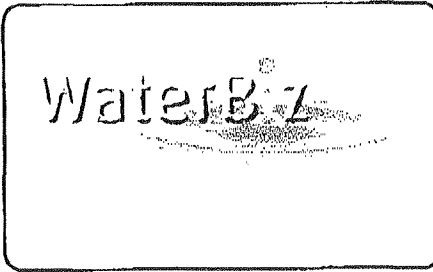
Item	Project Budget		Description
	Contribution \$		
	Proponent	Project Fund	
Earthworks	\$80,000	\$180,000	86,667m ³ @\$3.0/m ³
Gates, pumps and pipes	\$48,000		New control gates, pipes, surge tower and concrete works including walkways
Sub-Total	\$128,000.00	\$180,000.00	
Total			\$308,000

Certified report from WaterBiz will be provided at no cost to Cooinda a completion of the project.

A4



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PROJECT

**COOINDA COTTON HH
TENDER APPLICATION**

CAD File: 30150_HEALTHY HEADWATERS APPLICATION

DRAWING TITLE Property Plan		
DESIGNED	CHECKED	APPROVED
	JS	
SCALE	DATE	DRAWN
1:20,000	24: 8: 10	JS
PROJECT NO.	DRAWING NO.	REVISION
30150	30150_01	A