



PARLIAMENT OF TASMANIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

Cradle Valley Centralised Sewerage Scheme

Presented to His Excellency the Governor pursuant to the provisions of the Public Works Committee Act 1914.

MEMBERS OF THE COMMITTEE

Legislative Council

Mr *Harriss* (Chairman)
Mr *Hall*

House of Assembly

Mr *Best*
Mrs *Napier*
Mr *Sturges*

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INTRODUCTION

To His Excellency the Honourable William John Ellis Cox, Companion of the Order of Australia, Reserve Forces Decoration, Efficiency Decoration, Governor in and over the State of Tasmania and its Dependencies in the Commonwealth of Australia.

MAY IT PLEASE YOUR EXCELLENCY

The Committee has investigated the following proposal: -

Cradle Valley Centralised Sewerage Scheme

and now has the honour to present the Report to Your Excellency in accordance with the *Public Works Committee Act 1914*.

BACKGROUND

Cradle Mountain is located in the Cradle Mountain – Lake St Clair National Park and is part of the Tasmanian World Heritage Area (WHA). The park and Cradle Mountain in particular, enjoy a popular international reputation and are a major tourism destination.

The park caters for a variety of experiences ranging from short walks around the visitor centre, to longer walks around Waldheim and Dove Lake, and the extended walk from Cradle Mountain to Lake St Clair. Accommodation is available inside and outside the Park. Accommodation at Cradle Mountain ranges from luxury to self contained wilderness cabins, a bunkhouse and camping.

The WHA Management Plan

The WHA covers some 1.38 million hectares or about 20% of Tasmania. The WHA includes Tasmania's four largest national parks; the Franklin-Gordon Wild Rivers National Park, the Southwest National Park, the walls of Jerusalem National Park and the Cradle Mountain – Lake St Clair National Park. The area was added to the World Heritage list in 1982 and expanded in size in 1989 in recognition of its outstanding natural and cultural values.

Planning and management of the WHA is directed by the Tasmanian Wilderness World Heritage Area Management Plan 1999 (WHAMP) which is primarily administered by the Parks and Wildlife Service (PWS). The WHAMP defines a number of 'Visitor Services Zones' where major facilities for recreation and presentation are to be provided. The objectives of Visitor Services Zones are to:-

- "Provide a range of appropriate facilities strategically located to facilitate visits to the WHA and to enable all visitors to gain a first hand experience of a range of values: and
- Maintain, as far as possible, a natural setting and cultural integrity and to minimise the environmental, aesthetic, and social impacts of facilities and visitor use."

Cradle Tourism Development Plan

The implementation of a centralised sewerage scheme is one of the initiatives outlined in the *Cradle Tourism Development Plan*, which was finalised in June 2003. The Plan is a product of the Cradle Valley Steering Committee, which was formed as a result of a partnership between State Government and the Cradle Coast Authority.

The purpose of the Plan is to identify a vision for tourism in the Cradle Valley and the infrastructure and management systems required to deliver it. The Plan intends to provide a comprehensive framework for tourism infrastructure that will ensure the aims of the WHAMP are met.

The objectives of the Plan are to:-

- identify and protect the natural and cultural values of the area;
- manage activities (recreation, tourism, education) to protect the natural and cultural values of the area;
- promote and provide quality visitor experiences which reflect and respond to the natural and cultural values of the area; and
- develop the capacity to undertake the management of activities necessary to achieve the above objectives, and to support the existing tourism investment within Cradle Valley and provide opportunities for sustainable new development.

Project Objectives

The project objectives of the centralised sewerage scheme are:-

- to redevelop the Cradle Mountain area's sewerage infrastructure in a manner that minimises the overall environmental, visual and social impacts as far as possible whilst using effective design solutions with proven technology to minimise operational costs; and
- integrate the centralised sewerage scheme with other services, where practicable, in terms of design, construction, operation and maintenance.

The Scope of the Development

The proposed centralised sewerage scheme will replace existing treatment facilities, consisting of two sewage treatment plants (STPs) and numerous septic systems. There is broad recognition, by the Cradle Valley community, of the need to replace existing systems and of the potential benefits a centralised sewerage scheme may bring to local tourism operators.

The key components of the proposed CVCSS are:-

- a Membrane Bioreactor (MBR) treatment plant, situated to the east of Cradle Mountain Road, north of the airstrip. Of the standard treatment plant options available, MBR technology is considered to be the best available at this time in Australia and has been used on other locations around the country and internationally and is considered to be the optimum technology capable of treating effluent to the standards set;
- a shared trench running from the treatment plant site to the proposed discharge location beneath the Pencil Pine Bridge, at the entrance to

the Cradle Valley – Lake St Clair National Park. Such trench will contain:

- an untreated effluent pipe, collecting wastewater from Cradle Valley businesses, facilities and residences, and transporting it to the treatment plant;
- a treated effluent pipe from the treatment plant site to the proposed discharge location; and
- a water main which is part of a future centralised water scheme to service businesses along the route.
- the potential for existing and future developments to tap into the treated effluent pipeline and utilise treated effluent for non potable uses such as toilet flushing and fire fighting;
- two pump stations, located at the airstrip and near to the existing Cradle Mountain Lodge STP;
- a treated effluent header tank to pressure feed treated effluent for reuse.

The STP will be designed to process peak average dry weather flows of up to 500kL/day. This allows for a projected 25-year growth in resident and visitor numbers in the Cradle Valley area.

Relationship to Other Projects

The proposed CVCSS is a stand-alone project and a key recommendation of the Cradle Tourism Development Plan. Other projects currently, or recently, undertaken in the Cradle Valley area with potential for interrelations with the CVCSS include:-

- Cradle Valley Risk Assessment and subsequent Emergency Plan - This project involves identification and management of key risks to operators, residents and visitors to Cradle Valley.
- Cradle Valley Local Area Plan (LAP) – This project involves the preparation of a planning framework for Cradle Valley from Leary's Corner to the Park boundary. The LAP provides for controlled development within the area and will be formally integrated with the Kentish Planning Scheme.
- Cradle Village Development Planning Study – Stage 1 of this project, which has been completed, involved a demand analysis of projected visitation to Cradle Valley over the next 20 years. Stage 2 will encompass the identification and feasibility assessment of a new service centre located on the airstrip, to become the focus for future development and visitor services.
- Cradle Valley Centralised Water Scheme Feasibility Study - This project involved investigation of the feasibility of a centralised water system for the area and was an action identified in the Cradle Tourism Development Plan.
- Stage 1 of addressing the sewage treatment demand at Cradle Valley, as outlined in the Cradle Tourism Development Plan. This involved pumping sewage out from the National Park and into the Cradle Mountain Lodge STP. In addition, sewage from local operators was collected at an interim STP at the Wilderness Village, for treatment. These treatment facilities were considered to be an interim solution until the CVCSS was commissioned.

THE NEED FOR THE DEVELOPMENT

Existing Sewerage Infrastructure

General

The majority of sewage from the Cradle Valley is collected and sent to one of two treatment plants as follows:-

- Pencil Pine STP, which collects sewage from within the National Park, as well as the Cradle Mountain Lodge; and
- Cradle Mountain Wilderness Village STP, which collects sewage from the Cradle Wilderness Village, Cosy Cabins and the Cradle Chalet.

There are also a number of small residences within the catchment that discharge to septic systems.

Pencil Pine STP

The Pencil Pine STP is located on the western side of the Cradle Mountain Road (just before the Pencil Pine Creek near entry to the National Park). The plant was recently upgraded to meet its current license limits of 133 kL per peak day. It is estimated that the current throughput is 100 – 110 kL per peak day. The plant is generally performing within its license conditions, with the exception of nitrogen removal.

The plant currently discharges into an unnamed tributary of the Pencil Pine Creek, and then into the Cradle Mountain/Lake St Clair WHA.

Cradle Mountain Wilderness Village STP

The Cradle Mountain Wilderness Village STP is located behind the Cradle Mountain Wilderness Village infrastructure. The plant has a licensed capacity of 110 kL per peak day and runs at maximum capacity per peak day. This STP is considered to be an interim facility and no further development within its catchment is possible until it has been upgraded or replaced by a centralised scheme.

Treated effluent from the plant is sent to the airstrip site and applied (via irrigation) onto the ground. This is not considered current best practice – particularly in terms of the potential health impacts to people within the area and contamination of the groundwater body.

Effluent disposal to this site via land applications has been assessed as marginal, and is not a sustainable method for the long-term, due to poor soil suitability and controlling run off from the site. The License allows for short-term (Interim STP) discharge only.

Future Requirements

Other factors that drive the need for this development include the projected growth in the area, management of water supply requirements, the lack of further capacity available at the existing sewage treatment plants and increasingly more stringent compliance requirements for sewage treatment and disposal.

DESIGN RESPONSE

General

The proposed project involves the development of the CVCSS, consisting of the following infrastructure:-

- A sewage pumping station near to Pencil Pine Creek Bridge, collecting effluent from Dove Lake, the Visitors Centre and Cradle Mountain Lodge;
- A rising main of approximately 1,450 m in length from the above Pencil Pine pumping station to a manhole at the southern end of the airstrip;
- A gravity main of approximately 980 m in length from the above manhole to a pumping station near the Cradle Information Centre (airstrip);
- A sewage pumping station near the Information Centre (airstrip) collecting all the effluent from the Scheme;
- Connection of the existing Cradle Wilderness Village STP outfall to the Information Centre Airstrip pumping station;
- A rising main of approximately 1,500 m in length from the Airstrip pumping station to the proposed STP;
- A MBR STP capable of receiving and treating the flows;
- An access road to the STP from the Cradle Mountain Road to the MBR;
- A treated effluent storage facility;
- A reuse system (non potable, non human contact water supply);
- A pumped system transferring treated effluent 3400 m from the plant to Pencil Pine Creek; and
- An outfall and inline flow measuring device in Pencil Pine Creek; and
- Decommissioning of the existing STPs at Pencil Pine and the Cradle Wilderness Village.

Kentish Council has declared a Sewage District for the area. All properties within the Sewage District will be required to connect to the CVCSS. In addition, any new developments within the district will be required to connect to the treated effluent reuse system for non-potable water use. Existing developments within the Sewage District will be actively encouraged to connect to the treated effluent reuse but this will be on a voluntary basis.

Centralised Sewage Scheme Design

Proposed Non-potable Reuse

Several successful non-potable reuse schemes have been introduced in Australia in recent years; Rouse Hill and Homebush Bay in New South Wales and Springfield in Queensland are a few examples. Mawson Lakes, South Australia is another development where treated wastewater and stormwater will supplement at least 50% of household water and be used for all open space irrigation.

The high quality output of the proposed MBR STP allows for potential re-use of the effluent with minimal management impacts on the environment or public health. Non-potable reuse involves the provision of an additional reticulation system in parallel to the existing potable water supply. Suitable treated effluent can then be used for purposes such as toilet flushing, firewater, site hose down facilities and some minor landscaping.

The treated effluent reuse scheme will involve incorporation of a treated effluent line from the treatment plant back to all the sites, which would allow current and future operators in the Valley to connect. Kentish Council propose to make connection to the treated effluent reuse system a requirement of any new developments or expansion of existing developments within the Cradle Valley.

It is estimated that if non-potable reuse was applied by all operators in the Cradle Valley approximately 30% of wastewater could be diverted from discharging to Pencil Pine Creek, as well as significantly reducing raw water demands.

Proposed Treated Effluent Requirements

The Board of Environmental Management and Pollution Control have set treated effluent requirements for the proposed WWTP. The emission limits developed are suitably stringent to ensure the prescribed Water Quality Objectives (WQOs) and environmental values of the area are not impacted upon. The emission limits represent best practice environmental management and are only achievable utilising proven modern technology.

Proposed Treatment Process Selection

The preferred technology for the treatment plant is a Membrane Bioreactor (MBR). This technology is considered to be the best available technology at this time in Australia and has been used on other locations around the country and internationally. Of the standard treatment plant options available, this is considered to be the optimum technology capable of treating effluent to the standards set.

The treatment processes will require a high degree of reduction in BOD, suspended solids (SS), nitrogen, phosphorus and thermotolerant coliforms to meet proposed emission limits.

For a small plant with a wide seasonal variation in effluent flows and loadings, cost effective and efficient means of reducing BOD/SS/TN is by utilising a MBR. Evaluation of SBR or IDEA plant options have indicated that they would not be as reliable in meeting the effluent quality requirements, and would have larger footprints and associated impacts.

The MBR plant is a small footprint and can be housed within a building which will help to address noise, heating / treatment, security and weather / operational issues. Site plans of the STP and associated infrastructure are shown in and.

Subsequent to treatment in the MBR plant, treated effluent will pass through the UV disinfection system prior to discharge to the reuse / outfall pipeline.

The STP will operate 24 hours/day, with regular attendance at the site by operators.

A flow diagram of the potential treatment processes for the CVCSS is shown in Figure 5 of the Department's submission.

Treated Effluent Storage Dam

Storage will be provided to ensure that the required minimum dilution ratio for a flow of 350 kL/d will be achieved through the summer of the 10th percentile dry year. The storage has been sized to fill and empty in a 10th percentile rainfall year (i.e. 1 in 10 dry year) for an estimated maximum flow of 350kL/d. with a 1 in 180 dilution in the receiving environment.

To adopt a conservative approach, the water balance has adopted a minimum discharge flow (i.e. no discharge of effluent will occur below) of 56L/s based on the 10th percentile daily flow for the 10th percentile precipitation year of 2000. The adoption of a minimum discharge flow of 56L/s will ensure that the discharge of effluent to Pencil Pine Creek will have no impact on water quality during low flow conditions.

Typically, the discharge to Pencil Pine Creek will be fed directly from the storage dam. The storage dam will be HDPE lined to minimise potential impact to groundwater.

Effluent Disposal

A number of discharge options were investigated, considerations in the selection process included sufficient flow for discharge, potential impact to terrestrial vegetation, construction and maintenance costs and ease of maintenance. The proposed discharge location is in Pencil Pine Creek below the Cradle Mountain Road bridge. The discharge will consist of the following infrastructure:

- Construction of a permanent stream gauging station on Pencil Pine Creek to measure stream flow;
- A diffuser installed across the stream bed approximately 4 m in length; and
- Installation of a flowmeter and control valve on the pipeline to control and measure discharge to Pencil Pine Creek.

Discharge to Pencil Pine Creek will be from the header tank under gravity. The discharge flow rate will be set to achieve a 180 to 1 dilution at the discharge point, with no discharge occurring when flows in Pencil Pine Creek are less than 56L/s

Consultation Program

The submission of the Department informed the Committee that the primary avenue for public communication and consultation in relation to the CVCSS is via the Cradle Valley Tourism Infrastructure Development Steering Committee and the Cradle Valley Stakeholder Meetings.

The Steering Committee, it was advised, is convened by PWS, is comprised of representatives from Kentish Council, Friends of Cradle, Tasmanian Conservation Trust (TCT), Cradle Coast Authority, Cradle Mountain Tourism Association and Tourism Tasmania. The Steering Committee met approximately bi monthly during

project scope development and currently as required to discuss key projects being undertaken or proposed in Cradle Valley.

The stakeholder meetings, it was further advised, are convened by PWS quarterly, and involve landowners, operators, Friends of Cradle and other interest groups. These meetings are an avenue for discussing a variety of projects and issues relevant to the stakeholder group. The CVCSS has been a standing item on the meeting agenda since it was first proposed in 2003.

The proponent has also undertaken some individual consultation with local landowners and operators.

Additionally, the World Heritage Area Consultative Committee (WHACC) is a major stakeholder in the outcomes of the proposed scheme. The WHACC provide advisory services to the State and Commonwealth Ministers on matters relating to the function, development and management of the Tasmanian Wilderness WHA. The WHACC is interested in assuring that the proposed development is consistent with the requirements of the Tasmanian Wilderness WHAMP.

The project has received approval to proceed from the Kentish Council and the Board of Environmental Management and Pollution Control.

COST ESTIMATES

A detailed cost estimate has been prepared for the proposed Cradle Valley Centralised Sewage Scheme. A summary of the cost estimate is outlined as follows:

Item	Amount (excl. GST)
Preliminaries	\$920,000
Pencil Pine Pump Station (PS1)	\$335,000
Airstrip Pump Station (PS2)	\$265,000
Pipe Supply	\$562,000
Pipe Installation	\$1,278,000
Treatment Plant	\$3,724,000
Storage Pond	\$465,000
Treated Effluent Pump Station	\$140,000
Outfall	\$310,000
Roadworks	\$230,000
Property Sewerage	\$295,000
Decommissioning of WWTPs	\$35,000
Miscellaneous Works	\$20,000
Design Contingency	\$1,150,000
Project Contingency	\$1,946,000
Other Costs – monitoring and algae control	\$225,000
Total	\$11,900,000 (excl. GST)

EVIDENCE

The Committee commenced its inquiry on Tuesday, 17 July last at the Cradle Mountain Visitor Centre. The Committee further met on Wednesday, 22 August and Tuesday, 28 August last. During the course of the inquiry the following witnesses were called, made the Statutory Declaration and examined by the Committee in public:-

- Ralf Zenke, Senior Project Manager - Cradle Mountain Tourism Development, Parks and Wildlife Service
- Peter Mooney, General Manager PWS
- Ray Dodson, principal civil engineer, GHD consultants
- Anahita Jungalwalla, Manager Environmental Division, GHD consultants
- Andrew Roberts, Manager Business and Asset Services, PWS
- Peter Sims OAM (heard via teleconference facilities)

Background

Mr Mooney provided the Committee with the following overview of the proposed works:-

I want to open up with a statement of context about the STP that we are talking about today. This is the end of a long process that the valley has gone through. It started a number of years ago - about three and a half to four years ago - when the sewerage capacity of the valley and what was currently in place was looked at by local government. It was determined that no further development would be approved until a better management system could be put in for sewerage for the valley. That caused great concern obviously for the commercial operators and also for us because we are quite a high user of sewerage, in that we manage the park's reserve system in Cradle Mountain. More than 180 000 visitors come through our national park each year and they produce a fair bit of sewage. There was general concern all through the valley that something had to be done. A tourism development plan was produced that had a high participation rate of all the commercial operators, visitors to the region and major stakeholders such as the State Government. Out of that process it was decided that a number of initiatives should occur at Cradle Mountain. They involved initiatives such as resurfacing the road to Dove Lake, putting in a number of new systems inside the national park and also looking at systems outside the national park, such as a new STP. That was one of the major recommendations of that tourism development plan.

After further discussion with the commercial operators and people like ourselves, it was agreed that the State Government would lead the process, in parallel with discussions with the local government, the Kentish Council, in establishing an STP. It needs to be noted that it is a little bit unusual for the Parks and Wildlife Service to lead such an infrastructure project. Normally we do not manage such projects. We only manage them inside our lands, but we took the lead role and volunteered to lead it for the State Government. In that process there has

been a lot of deliberation, assessment and analysis of what should occur. What we have ended up with, as a result today, after a lot of assessment and analysis of other systems that may have been operable at the site, the actual design we have come up with meets all the needs of mainly the users, environmental outcomes and also the social side of the valley. It is a lot of money but at the end of the day we needed to have a system that could be put in next to a significant World Heritage Area site that would have very little impact on the World Heritage Area. As you appreciate, it has to go through Commonwealth legislation, State legislation and local government legislation. So it faces quite a significant approvals process.

So we ended up with this MBR system. The technical side can be discussed by my engineer and project manager colleagues, when you have questions about that. The real essence of the context is that we wanted to put in a system that allowed for the development of Cradle Valley and that is the whole crux of it. We believe that this system will allow further development and it is designed on a 25-year process. So what can be put in will be adequate for a 25-year growth period of the standard projections that we believe can occur in Cradle Valley. Those projections are not just pie-in-the-sky - they are solid, factual projections that we get from the commercial operators, which are the main users of the system.

The other issue to do with the new system is that we are putting in more potential for a more conservation-minded system to reuse water that is not the potable water. In other words, once the final product that comes out of the plant is a liquid, it is water that is reusable for non-drinkable sources. Again, that is not occurring at the moment and it does seem to make sense that, in the modern age of water conservation and recycling, we put that facility in. So, as you go through the technical data, you realise there is another, extra pipe that is put aside the other two main entry and exit pipes which will facilitate the reuse of a water system, which is not in place in many places in Tasmania.

As far as the design goes, it is also interesting to note that the new sewerage system that has been designed for Freycinet - Coles Bay primarily, the township and the National Park - is a very similar system. It is a MBR system as well. So that is a completely independent appraisal and assessment that has gone on at another location on the other side the State, but they have come up with much the same solution. So it is fair to say that what we have gone for here is not that unusual when you look at the contemporary standards required to meet environmental outcomes.

...I suppose there is another emphasis to this and it will come out through some questions by you, I am sure, is that as far as the eventual owner of the system goes, it is fair to say that the State Government is building the system and design construction to the commissioning stage and we are still in negotiation with the Kentish Council about the final management process. Under the normal local government process, this area has been declared a sewerage district already and the local government will take it over. But I also have to announce that there is a sewerage and water

authority process that is being looked at, as you know, statewide at the moment. So I cannot really comment too much on that. But it is fair to say that may have some influence on the eventual owner of this sewerage system, but I cannot give any details of that. I have just been advised that I should mention that. That is really, I suppose, to give some more security to Kentish Council, as far as their abilities to manage the system are concerned because it is a very small municipality with a very small ratepayer base. This is a very modern system which requires high standards and obviously some cost is involved in managing those high standards, compared to the system you might have put in 20 years ago and we acknowledge that.

Mr Dodson spoke to the plans and described the details of the proposed sewerage system:-

We are all sitting down here at the visitor centre. Leary's Corner, where you came in from Devonport this morning, is down the other end. We have Cradle Mountain Road and the airstrip, and basically there is a hill in this area and all the wastewater will gravitate down to around the Pencil Pine Creek area. There will be a pump station installed there to pump the raw sewage back up through a system to the treatment plant, which is located up on the hill. So it will gravitate from down here, pumped to the top of the hill, gravitate down to another low point near the airstrip and all this area will then gravitate into the pump station and that pump station will be the next leapfrog in the system up to the treatment plant at the top of the hill. The treated effluent then discharges through a pipe all the way back to Pencil Pine Creek but along the way it will be pumped into a storage up on top of the hill and that will maintain pressure in that out-fall system to enable the effluent to be re-used by developments, say for toilet flushing, fire hydrants or whatever. That is at a level that will maintain sufficient pressure. Obviously it will gravitate down to this hill into the river, so there is an actual control valve at the river to maintain pressure in that system, so that we get pressure in this area as well. It is then discharged down into Pencil Pine Creek under certain conditions, which we will discuss later. Obviously to maintain the necessary dilution rates so we don't have significant impact in the river, we can only discharge under certain conditions.

Cradle Valley Tourist Development Plan

Mr Zenke addressed the Committee in relation to the Cradle Valley Tourism Development Plan as follows:-

The need for the plan was identified early on in 2001-02 and as a first step a demand analysis was undertaken to determine the current and the future needs and use that as a basis for an appropriate design response. We also undertook an option analysis about where we were going to site the plant and we came up with the current location as being the best suitable location from an environmental and engineering point of view. We took

that as a basis for a design brief, which we then gave to GHD and they obviously came up with a design response. That is the background.

Mr Dodson added:-

That tourist development plan came up with a list of 27 items, apparently, that are required for the development of the area and obviously, the centralised sewerage scheme was one of those which is what we are talking about today. But the main objectives of the centralised sewerage scheme are obviously to provide appropriate sewerage infrastructure in a manner that minimises environmental, visual and social impacts in this special area. Obviously we needed to come up with something that was reliable and that was appropriate for the conditions - the cold weather, varying loads, due to varying tourist numbers and those sorts of issues. It needed to be coordinated with other needs as well. Peter mentioned previously that they have this reuse line to try to make use of the treated effluent instead of just discharging it into the river. So we have provided that facility and also parts have required a water main to be put in parallel with the sewerage system, a potable water line, so that, hopefully, some time in the future a centralised water system may be able to be built here as well. We stayed here last night and the sign on the tap says, 'Don't drink the water.' That seems to be fairly at odds with the environmental feel of the place. So, I guess, the point is that parks are getting a bit further ahead than just the sewerage.

Just a bit of background on what is here now and how we are trying to address those issues. Currently, as you are probably aware, there are a couple of sewerage plants. There is one down at Cradle Mountain Lodge, which is privately owned, and one that Parks operate up at the Wilderness Village area. Cradle Mountain Lodge discharges into a tributary of the Pencil Pine Creek and, I do not know if you have had a chance, but at the end of the airstrip is where the other plant discharges, is to be irrigated to an open area there. So it does the job but it leaves a bit to be desired. So we have to do better than that with the new system.

Ms Jungalwalla added:-

In terms of the original planning of the project, the sewage treatment plant was originally proposed in 2003, and a DPEMP was prepared at that time. The proposal at the time involved a dual system of irrigation to plantation, coupled with a discharge to the Iris River. That was an initial idea that was further investigated and deemed to be unfeasible, based on the evaporation rate, the rain in the area, the uptake of trees in plantation, slow growth rates et cetera, and the low flows in the Iris River. It was deemed not to be a successful option. Further work was done to investigate alternatives and at that point some options in the Dove River, further away in the western rivers, and other options further downstream in the Iris River were all investigated as potential discharge options for the treated waste water. That was the point at which it was deemed that the most suitable and successful option would be the discharge to Pencil

Pine Creek near the visitor centre. The original proposal has now changed significantly to the proposal that has been put forward.

In terms of the statutory planning process, it a three-tiered process: approval from local government under LUPAA; approval from the State under the EMPCA - the board of Environmental Management and Pollution Control; and Commonwealth approval because of the issues with the World Heritage Area, which is protected under the EPBC act. In addition to that, because it is associated with the World Heritage Area, the World Heritage Area Management Plan is also relevant. The involvement of the World Heritage Area Consultative Committee - WHACC - is also involved and has been consulted throughout the process. At this stage, approval has been granted by Kentish Council and the Board of Environmental Management. We are waiting on approval by the Federal Government at this stage, and that is still pending. You may be aware that there was an appeal against the local council and the State decision, and that was settled prior to a hearing. That has been sorted out and now we are waiting on Federal approval.

Main components

Mr Dodson described the main components of the proposed system:-

... It is basically a system of two pumping stations: one down at Pencil Pine Creek and one at the airstrip. They pump sewage up to the treatment plant on the hill. The type of plant that we have recommended there is a membrane bioreactor. The reason for that choice was that it gave the best opportunity for reliably achieving the effluent quality that we need to achieve to discharge into Pencil Pine Creek. It had some other benefits in that it took up a fairly small footprint, so we are able to put it in a building, which helps with weather conditions, keeping things warm and secure; it is a fairly well-proven technology. There are a number around, particularly in areas like this in New Zealand, Canada and Europe. Part of the treatment system is treated effluent storage. As I mentioned to you before, we can't discharge into Pencil Pine Creek continuously because during low flows we would not be able to achieve the dilution ration we need, which is about 180 times the river flow. There will be times in years to come where we will have to store. We have estimated that, provided we maintain the re-use component that is predicted, that we would need to provide a storage volume of about 23 megalitres. That will be part of the initial plant. If we are going to achieve that re-use level, we will have to expand the storage volume and that space is taken into account in the set-up of the plant. The effluent will be disinfected by UV - an ultra-violet system that will get rid of the nasties in the water. It will be discharged, as I say, into Pencil Pine Creek through a defuser to get the proper dilution and mixing into the creek. That will occur just below the bridge down here.

Storage

The Committee questioned the witnesses regarding any external affects, if any, upon the storage facilities. Mr Dodson responded:-

...You can imagine that the effluent quality requires a very high level treatment and that is regularly monitored. If we have problems with birds or possums or things like that then it may have to be covered. We are not intending to cover it initially because it is a very large cost and quite an exercise, as you can imagine, because it covers a hectare or a couple or hectares, I cannot remember the figure. It is quite a large storage. So covering it would be quite an expense and we do not believe that will be necessary. But if it is proven to be necessary, then that would have to be done.

... The water level is up to about four metres deep. So we might have surface ice on it but it will not get four metres of ice, hopefully.

... We have this storage up on the hill here and it is like a water supply system, if you like. We have to have a storage at a high level in order to give everybody adequate pressure to use taps and flush toilets and whatever. So it is pumped from here to there and then it gravitates from here to there. Do not forget there is a controlled outlet so that we can regulate when it discharges into the river.

... We have tried to minimise the amount of environmental damage - cutting down of trees and digging up of roads et cetera - in putting in these pipes. There are quite a number of pipes. You have the gravity sewer collection pipe, a water main for the future potable water system and, I think, in some instances there is another pipe. So there are three or four pipes in a trench. So you can imagine that the trench is quite a wide corridor. We have tried to locate that in the corridor that has already been damaged to some extent, if you like, by the Telstra cable put in there some time ago.

Ms Jungalwalla added:-

That was one of the considerations when we went through the stakeholder discussions. In some places the Telstra cable is significantly set back from the road, so with a few extra metres of clearance you will be able to maintain a buffer of trees along those locations. In the area down towards the creek where you can see the more cleared location, that is a grassland area and in those locations the grassland is threatened so the material will be scalped from the top surface, the cable will be laid and the material replaced over the top. In those areas you will not be able to tell that there is a route through there. In the other areas we have had to keep it back a little from the road so that we can maintain a tree buffer along the edge for that visual purpose.

The Committee sought clarification from the witnesses as to the affect of freezing upon the works, Mr Dodson responded:-

The pipeline that Parks has had a problem with in the park is above ground; it is hanging underneath the boardwalk ... to avoid the problem in the new scheme, everything will be buried so it will be well below the frost line or the freeze line of the ground.

Management committee

The Committee questioned the witnesses as to why a management committee had not yet been appointed. Mr Zenke responded:-

We used to have the steering committee, which basically formed the management committee. Initially it was suggested that we have a steering committee and a management committee. However, the steering committee did a very good job and made all the executive decisions, so there was not much point in establishing another committee on top of one which already worked well and had a wide array of stakeholders, including the key stakeholders such as the council, Parks and Wildlife Service, the Cradle Coast Authority, Friends of Cradle, TCT and so forth. That seemed to work well.

... The steering committee started in 2003 and has been the driving force behind the development.

... It has done its job well and once the steering committee signed off on the decision to proceed with MBR plan and so forth, the project management of that was obviously passed onto Parks, being the link agency anyway, and in cooperation with the Kentish Council. If there were any decisions that had to be made, other than technical expertise, for which we have our own engineers, or environmental issues, the steering committee was basically recalled to sit and decide.

Water supply

The Committee questioned the witnesses about the source of water for reticulation. Mr Dodson responded:-

It is a combination of things. Some developments have bores, some have dams. I think Parks are currently building another dam to try to provide a water source. It is a bit of a strange situation when you think of Cradle Mountain. We think it's wet and there is plenty of water but that is not the case at all. Water is a real problem up here for drinking and availability. There are tanks to a degree but the storage volume is not sufficient and the water quality is such that you are not supposed to drink it, as you can see when you go into any of the motel rooms. One of the ideas of this scheme was to try to reduce the water problem by being able to re-use treated effluent for things like toilet flushing, hydrants et cetera.

... (the reticulation of recycled wastewater) acts like a normal water system where you take water out of a river, pump it up to a reservoir on the hill and then the reticulation would be out of that. The houses would be a certain distance below the reservoir level in order to provide them with sufficient pressure for taps et cetera. That is basically what we have here. The water source is the treated effluent and that is pumped to a reservoir on a hill. That reservoir is at a higher level than all the developments through that area in order to provide sufficient pressure - although it won't be to taps in this situation because we don't want people drinking it - for toilet flushing and that sort of thing. The scheme only provides the main pipeline and the tank; it doesn't provide the plumbing from this pipeline to the individual developments. That is to be done by the developers, the resort owners et cetera. I think Kentish Council is going to require any future developments to use treated effluent. That will be one of the conditions of approval for, say, the Grollo development here or any other chalet that is established in the area - to ensure that we get the amount of re-use that we require in order to avoid having to build extended storage at the treatment plant site.

Alternative solutions

The Committee noted the \$12 million cost of the project together with the estimated \$750,000 recurrent operating expense and questioned the witnesses as to what, if any, alternative solutions were considered. Mr Dodson responded:-

There are lots of people claiming to be able to do all kinds of wonderful things but not a lot has been proved. What we have to have here is something that we can sit back and relax about, and not have to worry every night that the thing is not going to work properly and we are going to have to fix something or whatever. When you say it is a complex system, it is not really, it is a conventional system. We just have a conventional collection system.

... We only have two pump stations, so it is not particularly difficult. I suppose the treatment plant is relatively sophisticated, but it needs to be sophisticated in order to produce the effluent at the standard that we need to discharge back into the river. We did look fairly carefully at other points of discharge and disposal. Really we only have two options. You can put it into the river or you irrigate it onto land. As Anahita has said to you before, the land option was not practical, so discharge to the river is all we have left. So the treatment level has to match that.

The Committee pursued the question of what, if any, consideration had been given to other than the proposed design. Mr Dodson responded:-

It has all been driven by the impacts that you are going to have on the environment and the effluent quality that you need to meet in order to minimise that impact. Those figures were nominated by the Environment division. So we are then trying to find a treatment process that will reliably meet those criteria. There are a number of processes around.

Conventional activated sullage. I do not know whether people have the impression that an MBR is some whiz-bang, sophisticated system. Basically, an MBR is an activated sludge tank with these fine membranes, very fine filters, attached to the end of it. So that is really the only difference between an MBR plant and most other conventional, high level treatment processes.

An alternative that has been used at St Helens for the treatment of effluent is what is called an SBR, which is a sequential batch reactor. The only difference between that and what we are providing here is that there are two tanks in that situation, so that you are filling one tank while you are decanting and draining the other one. They still have a membrane downstream of that process, the same technology as we have here. So it is only the up-front stuff that is any different. The disadvantage with that is that you need two tanks, it is a bigger size and it is less able to be contained in a building, economically, which we need to do here to deal with heat, security and noise containment issues.

So we have looked at other types of plants. If you are talking about non-powered and non-whatever systems, I am not aware of any of those that are likely to be practical in this environment. Having a series of little septic tanks or similar types of systems, I think, is likely to make management and the risk of something going wrong much more difficult than having a centralised, single plant.

Mr Zenke added:-

The management of the system is also important to consider. If you have, say, half a dozen individual systems, you obviously have to acquire the equivalent land to house the plant, which is not an easy task. As Ray said earlier, the environment up here is very special. You have a lot of other environmentally sensitive areas, but this is a World Heritage area and you have to produce a discharge quality into pristine water; that is the ultimate guideline and that is why we applied this system. We know many ways to skin a cat, obviously, and there are horses for courses, but we have to come up with a reliable system which works all the time and that has been proved to be effective and produces a high quality effluent.

... We have undertaken an assessment of an alternative system about a year ago, which involved wetland evaporation and so forth. We have had professional advice that this would not work in this environment and, on the basis of that professional advice, we then decided to proceed with an MBR plant.

The Committee pursued the matter of the affordability of the proposed new scheme and in particular whether the operators had been given an indication of the likely sewerage rate. Mr Zenke responded:-

The operating costs are fairly high when you have very reliable system. The more operators that come on line in future developments, the cheaper

the operation costs will be ... it depends on the future management arrangements, whether Kentish or a regional authority manages it or whether a depreciation component will apply to eventually replace the plant in 25 to 60 years - or if the Government or Kentish waives the depreciation. It is not up to me to decide.

Mr Mooney added:-

Some figures have been floated. The main factor that has to be considered is whether, whoever runs the plant, it is decided that they consider depreciation costs as well in the user-pay costs because then that is the big difference. Basically, that is the guts of it. The order of difference is between about \$5 a kilolitre compared to \$9 a kilolitre. That is the order of difference. At the moment people are paying, with the current treatment plant, in order of \$8 a kilolitre here. What they pay now is about half what they could pay at the top end in the future. However they may pay less if depreciation is not considered. The difficulty we have today is that we cannot consider that as part of the design because that is the management and the running profile as far as depreciation goes. We have had ongoing discussions with the Kentish Council about this. We know their view because they are a small organisation that has only so much capacity. They have had some slight difficulties with a new plant that they installed in the last few years; they are having difficulty getting it continually commissioned. So they are a bit shy.

All I can say is, yes, the water and sewerage authority may be a clear answer, but when that comes on line is not decided yet, as you know.

That has to be considered in the light of all sorts of factors. The difficulty is we have been labelled with building a system that may be prohibitive for people to enter and use, but that is not our intention. Our intention is to build the best system we possibly can under the constraints we have. To be honest, we have produced a system which has been guided mainly by the environmental requirements we have been given from the State authority, which is the Environment authority. It is a bit of a catch-22 for us. By the way, we are going to be one of the users, probably a major user - about one-third. So I have to consider that in the Parks and Wildlife Service budget as well. I am in a bit of a difficult position in that I am a proponent but I am going to be a user as well, so I am fighting for both sides. We do not want to be paying an exorbitant amount because it comes out of our budget.

... at the moment they pay an average \$8 a kilolitre and the highest projection is around \$9-\$10 a kilolitre, so there is not a lot of difference.

Users

The Committee questioned the witnesses as to the number of operators who had foreshadowed their use of the system. Mr Zenke responded:-

The major operators all have to connect to it under the new sewerage district. The big operators like the lodge, the camp ground, Federal Hotels, Wilderness Village and so forth all have to.

(As to how many do not have to) ...it depends where you are, I guess. If you have a holiday shack which is about three kilometres from the pipeline, it might not necessarily be feasible for one toilet to be connected to the system.

Mr Mooney added:-

It is one of those conundrums, I suppose, in that to move forward and have advancement at a sustainable level they need it but they don't want to have to pay too much for it. That negotiation has been going on but it is not defined exactly to the dollar yet. The order that has been defined is not a lot different from what they are paying now for the current system use. This will have a lot more potential capacity with it, whereas at the moment they are sealed; they cannot develop any more.

Design

The Committee questioned the witnesses as to what provision would be in place in the event of an emergency discharge and whether it was feasible for the pipeline to be protected by a separate 'sleeve'. Mr Dodson responded:-

... The intention is to bury the pipe. It is fairly rocky ground, so there is risk there. The trench will be bedded with sand, the pipes will be laid and they will be covered with sand. So we will not get pieces of rock and whatever potentially causing mechanical damage to the pipes. The pipes will be located at a level well below where it will freeze. So we will not have that problem, which is what they are experiencing through the rest of the park here at the moment. We are not intending to put a pipe in a pipe because the risk of failure, we believe, given the quality of construction, the strength of the pipe and the pressure in it, is very minimal. The cost of putting each pipe in another pipe would be quite extensive. The cost of the actual pipework - supply of the pipe and construction - is about \$2.5 million. If we had to put extra pipes in you can imagine that cost would increase quite significantly. The cost would be much greater to save a little bit of potential risk.

... We have the raw sewage coming into a building in which the treatment process occurs. So we have raw sewage coming in, it is treated, then the treated effluent is discharged back out through another pipe, parallel to the inlet pipe. So you have two pipes in the one trench. The treated effluent goes into a couple of storage tanks and it is then discharged back out of the tanks to a pump, through a UV disinfection system, and out the pipe and back through the system.

If these temporary storage tanks overflow, then it goes into the treated effluent storage. So it is stored on-site. It is a lagoon of 23 megalitres, so

it is quite a large storage, bearing in mind that the future daily inflow here is about 500 kilolitres, about half a megalitres. So you have 46 days storage there at dry-weather flow. If it overflows here it is stored into these lagoons. Those lagoons are earth structures lined with an HDPE liner to stop any leakage or what have you. So there is no chance of the effluent, even though it has been treated to a very high level, seeping into the ground water because we have the liner to protect it.

If we have a power failure here or over the whole area, part of the scheme is to purchase a generator system on a trailer. I think there is one or two, but the generator system can be used to fire up the pump stations to get the waste water up to this site. If we have a power failure over the whole area then obviously the treatment process is not going to work in there but at least we have it up to the site. That then going through a screening system and then gravity overflows into this emergency storage system, which is about 3 megalitres - so it is about six days of dry weather flow. Again, that is HDPE-lined to stop that getting into the groundwater et cetera. We have a pump station which, once the power is back on, will pump the sewage back through the system.

‘Option B’

The Committee, in reference to the written submission of Mr Peter Sims, sought clarification from the witnesses as to why the ‘old sawmill’ site was deemed to be unsuitable for the location of the lagoon. Mr Dodson responded:-

... the issue with the sawmill site is that it is pretty much next door to the World Heritage Area and if there is an overflow, then it will pretty much go straight into the Dove River.

Mr Jungalwalla added:-

... When we went through the development of the DPP and the back and forth in terms of, particularly the involvement of the WHACC, one of the biggest concerns raised was the potential, as you have discussed, as small as it is, for an overflow and for some sort of issue with the plant. On the map I just showed you then, you will see that site B is almost directly on the boundary of the World Heritage Area. It is very close to the World Heritage Area, as opposed to the current location. If there was a discharge, it eventually would find its way to the Iris River, but even in terms of the Iris River, there is a significant distance and you would imagine it would have a lot of trouble getting there before it seeps in.

(The Iris River) is outside of the World Heritage catchment. Halfway through that image is the catchment for the Iris River at one end and the World Heritage-Dove River and so on, at the other. So one of the reasons for that site is that it is entirely outside of the catchment. It is in proximity, but also outside of the catchment itself.

Costs

The Committee sought further clarification from the witnesses regarding the project budget. The following exchange occurred:-

Mr BEST - *Just looking at your cost estimates, preliminaries are \$920 000; is that your estimate from where we are to date?*

Mr DODSON - *I am not quite sure where that figure is coming from.*

Mr BEST - *Sorry, page 23 in our report, 'Breakdown of costs'. A summary of costs based on the development design information has preliminaries of \$920 000.*

Mr DODSON - *They are the sorts of costs that a contractor would put in to cover things such as set up, disestablishment, paying insurance, and his own internal management systems. It is just a component of the construction costs.*

Mr BEST - *Could the committee get a breakdown of how you reached that estimate - not today - so that we can see how you have worked that through? Is that too sensitive for your tender?*

Mr DODSON - *No, it is not a problem. I think we have just taken a figure of 12 per cent of the actual construction cost. That is a normal sort of percentage that contractors would apply for construction management of a project, where they get subcontractors' prices or their actual construction prices and then add a percentage for managing the job. It is called 'preliminaries', but maybe that's not quite the right terminology.*

Mr BEST - *No, we see different terminologies with cost structures all the time. Could you elaborate on design contingency and project contingency?*

Mr DODSON - *This estimate was done probably 18 months ago and followed on from some earlier work and was a much smaller number. The design contingency is basically an amount to take account of unknowns at the time and things that happen during construction works. Generally there are things that you don't know about, the extent of rock, wet weather and those sorts of things, so it is really a figure to take account of unknowns and uncertainties.*

Mr BEST - *Unknown things in the design, yes, and then I suppose the project has unknown events. You have quite an amount there - \$1.9 million for project contingencies and \$1.15 million for design.*

Mr DODSON - *Yes. This estimate was done about 18 months ago and it is to take account of things such as inflation. It had not been approved at that stage, so there are all sorts of things that come out of that -*

monitoring of the river, the environment, the effluent quality. I think the actual estimated cost of that is something like \$200 000.

Mr BEST - *That is listed separately, as opposed to the \$1.9 million and the \$1.1 million.*

Mr DODSON - *Okay. It will largely take account of inflation. By the time the project is constructed it will be the best part of three and a half to four years from when the estimate was done. In the current environment, with the amount of work around for pulp mills and other sorts of things, I don't think we are going to get very tight prices. I don't think the competition is going to be all that great. If you took 10 per cent a year over four years, you end up with a fairly large number, which is probably about that sort of number.*

Mr HALL - *It still seems to me a pretty fudgey sort of a number. You have about \$3 million worth of contingency there, which is about 25 per cent of the whole capital expenditure, and that is aside from the preliminary costs of \$1 million.*

Mr DODSON - *The preliminaries are not a fudge value; they are a real number. The construction contingency is to take account of unknowns and the sorts of things that are likely to change during the three or four years from when that estimate was done until now. We had not done detailed design at that stage, as you would appreciate, so there needs to be a -*

Mr HALL - *Are you saying that the original estimate started about 18 months ago?*

Mr DODSON - *Yes.*

Mr HALL - *We have an end date of 2008?*

Mr DODSON - *That is about right, yes.*

Mr HALL - *It still seems to me to be an extraordinarily large amount. You also have the \$225 000 for other costs, including monitoring and control. That is an after-project cost, I would have thought, that would be borne by Kentish Council.*

Mr DODSON - *No, it's not; it has been agreed that it would be paid by Parks because it is part of the project cost. Besides that monitoring cost, there are a number of other costs that have come out of the conditions that have been imposed by Environment. That includes things such as various studies on flora and fauna, before and after, and weed plans and systems that have to be taken account of. The list of conditions that we have to comply with is a number of pages long and many of those require expenditure. So part of those contingency numbers are to take account of those issues. Again, when we did that original number we were not privy*

to knowing what all those conditions were. It was an amount put in to cover those sorts of things.

Mr BEST - *Do you know what they are now then?*

Mr DODSON - *We know what the conditions are.*

Mr BEST - *Well, is it \$1.9 million in relation to project contingencies, or is this figure 18 months old now?*

Mr DODSON - *We have some of those numbers, but I don't think we have them all at this stage. Some of them are things that we can get prices for, and some of them will be nominated by contractors - they will be contractor prices.*

Mr BEST - *Sure, there is always going to be a variable. As a committee we have to approve an amount of spending and this is a little bit rubbery if we don't know a ballpark figure. Mr Hall has pointed out that it is quite an amount for unknowns.*

Mr ZENKE - *A contingency is not an expenditure, it is an allowance. It is like an insurance policy, so it doesn't mean we have to expend it. Mind you, as you probably know from your experience, there are hardly any projects which don't spend the contingencies. I know a lot of projects where they don't allow enough contingency. They run out of money halfway through and have to go through requests for additional funding, which is not easy. Coming to what Ray said earlier, when we did that we had to make a certain allowance - and it sits there. If it doesn't get expended, we are all happy and we give it back to Treasury, no doubt about it.*

Mr BEST - *Maybe we could have a breakdown of what it is, though. I don't expect you to explain it now because you have said it is 18 months old and some of it you know and some of it you don't know. Maybe you could impart that knowledge to us and that would make it a bit clearer for us.*

The monitoring and algae control, is that \$225 000 part of the commissioning? What happens in subsequent years? Who is going to pay that?

Mr DODSON - *Because we are doing something new and to some extent unknown, there is a lot more monitoring required in the first couple of years. From then on you have trends and you have a better idea of how things are going to happen in the future. After the two years there will still be costs but those costs will be reduced because we will have to do less tests given that we will have knowledge from the prior two years.*

Ms JUNGALWALLA - *Most of those components are in relation to the response from the board in relation to the DPEMP and the conditions for*

ongoing work required. For example, we have been monitoring background water quality in Pencil Pine Creek since back in early 2006. Certainly we have been doing quarterly assessments of aquatic biology. There have been algae assessments in the creek to build up a background of data. Once the plant is up and running there is a fairly intensive amount of work required during commissioning and in the first year in particular. From the information we have to date, we believe that we will not have an impact on the creek, but it all needs to be tested fairly intensively in the first year. After that, the level of intensity can be dropped. There are a number of things that we test on a quarterly basis, for example, in the first year and then on a three-yearly basis after that.

So my understanding of that component was that it related to that initial start-up period, in particular the commissioning, until the plant is clearly up and running effectively. I guess that first impact has been measured because certainly there is a huge amount of work in the environmental component for the first year and during the commissioning, but that will drop back.

Mr DODSON - *That was a hard number; it was not an estimate. We knew the tasks that had to be undertaken, so that is a genuine cost estimate.*

Odour

The Committee questioned the witnesses as to the odour treatment proposed for the project. Ms Jungalwalla responded:-

An odour assessment has been done by Tim Pollock, who is one of the GHD people in our Melbourne office. He has 30 years experience in odour modeling and assessment for treatment plants. He looked at the design information sent by Ray and Robert van Oorschot, our process engineer. He considered information based on the odour-control beds that will be put in place - the soil filters - and then determined appropriate buffers at the treatment plant site to establish that there is no odour impact beyond the boundary. In relation to the discharge side at Pencil Pine Creek, it was established, based on Tim's knowledge and experience, that it will have no potential for odour because of the high level of treatment. Based on his work there is considered to be no potential for odour impacts at the creek or from the treated effluent in the storage facility, so it is only at the plant.

... The work that Tim Pollock did was to establish an appropriate buffer distance, based on the local topography and air drainage and so on. The buffer distance determined was smaller than the standard recommended distance, which is 200 metres. He established that a smaller buffer was appropriate. The precautionary principle was then applied and we have said, based on that, we should be allowing 200 metres, which falls within the site itself except for a small area on the southern boundary of the site, which is across into private property. There is work in the DPEMP to establish how big that small crescent that goes onto another property is

and what percentage it is of that property. I think approximately 2 per cent of that property is affected by the edge of the buffer. The remainder is retained within the land owned and the actual plant site. That is a fairly standard approach for establishing a potential for odour.

Mr Dodson added:-

The pump stations would be potential sources of odour. The pump station is enclosed in a concrete tank with a lid and covers on it. As Anahita said, it will be ventilated to a soil filter, which is an above-ground structure because we don't want it below ground because of groundwater table levels. That is filled up with various materials in which bacteria grow, so the air from the pump station is ventilated to that and filtered through the system. That is a well-proven technology in lots of places in Tasmania and other areas. The existing treatment plant sites, to the best of my knowledge, do not have odour problems. This treatment plant is right in the middle of that development so if there were odour problems they would be pretty well known. The sewage is pretty fresh because it is not traveling large distances. The fact that we don't have problems there lends a fair degree of confidence that we are not going to have problems with what we are doing. We are pumping it this distance so there is some extra travel time involved, but it is not all that significant when you think about the wastewater that is pumped out of the park that has traveled God knows how many kilometres and sometimes does not get there for weeks because it is frozen et cetera. To the best of knowledge there is no significant odour problem with that either. There is no history of an odour problem. What we are doing, we are going to a lot of trouble to minimise those risks et cetera. Up here at the treatment plant site, everything is housed within a building, but the odorous areas in that building will be covered and ventilated to a separate odour control facility there. So we have really gone to a fair amount of trouble to make sure that we do not have a problem with odour because obviously odour is a major issue in this environment. I think we can look you in the eye and say that has been looked at very carefully. That is not to say that something is not going to go wrong, but we have certainly taken some fairly positive steps to minimise that risk.

Evidence of Mr Sims

Mr Sims made the following submission to the Committee in respect of the proposed works:-

The first key issue was the siting. The wrong site was selected for the central sewerage scheme from the outset. I consider this to be prime land suitable for future residential development on the hilltop between the existing village and the new Grollo resort.

In my July submission I mentioned that the local area plan needs to be considered as part of this proposed development and I do not think you have had an opportunity of seeing that draft local area plan. I think it

should have been made available to you at the time of your deliberations which would have helped you to see the bigger picture as to where the sewerage plant fits in with not only the development around the airstrip but also in the larger context.

You can see (the proposed site of the development) fits slap-bang right in the middle of the two developments, one for the village around the old airstrip, and the other one to the north. That is one of the reasons we say that that really is the wrong place. When I raised this with Parks in early 2005 I had a good look at the area and that is why I was very concerned that the initial proposal would not work because of the very small catchment of the Iris River which at the time in March 2005 was almost dry and it was very dry for many, many months. The proposed amount of flow coming from the sewerage works would be far greater than the flow in the Iris River so this to me looked to be just not on. When I expressed these concerns to Parks they arranged a meeting on 11 March when a local landowner and myself representing the Conservation Trust strongly objected to the proposal of the irrigation scheme, the plantation and the discharge into the Upper Iris. Eventually, the engineer from GH & D who was present said to us that he was quite concerned with the proposal. He must have seen the Iris River just being a trickle so he went back to Hobart and said, 'I will have to rethink the whole thing.' So we were able to get that point across very early on, which was useful to have.

A copy of those minutes I have given to you as attachment 3 in the latest documentation, 22 August, and in that you will find that Parks and Wildlife did the minutes and I objected to the way that had been slanted. I asked for the amendments to go out with those minutes to the respective people, which Parks did. It just shows you some of the problems that we experienced very early on with this project, trying to get some of the points across, get proper consultation and get some input into the whole of the development.

The development is very necessary. I think I made that quite clear, that the trust is not objecting to the proposal, it is just looking at some of these issues that should have been considered very early on instead of Parks virtually taking the lead role and really not addressing the issues.

... I will go to issue two and this was on the reference to the onsite inspection and possible alternative sites. When we raised the issue of the old timber mill site we noted at the time that as it was an old timber mill. As you would know, Mr Hall, old timber mills do have a lot of contamination around them, oil drums and hydrocarbons, there is a general messy nature to them. It was quite apparent to me that this being right on the edge of the World Heritage area and draining into the World Heritage area, it should have been cleaned up. This would have been a very good opportunity to do two things - firstly, to clean up the site, which has to be cleaned up anyway and secondly, to put the sewerage works in there, which is away from the main development areas, to the west. When I looked at the DPEMP, the Development Proposal and Environmental

Management Plan, which I received from GH & D during the public comment period, it had been looked at by GH & D but they virtually dismissed it as being unsuitable because it would drain into the World Heritage area. But when I looked at the site, it is on a watershed and, as you know with a watershed, the water goes both ways and here, some of it goes into the World Heritage area and the rest of it seeps eventually into Black Bob Creek which goes into the Iris. So it is quite apparent that with all this infrastructure that is proposed, it was quite easy of course to have the excess overflow go down into the Iris system rather than World Heritage. But this was just dismissed out of hand. The reason that site was never looked at was that, on key recommendation 11 in the Cradle Tourist Development Plan 2003 mentions the recommendations for a sewerage plan, that it not drain into the World Heritage area, and that was taken ad lib, without consideration of the possibility that it might be necessary to get the dilution. Of course that was obvious to those of us who know the area well, we just know what the systems are like there and even in the dry period. That was not necessarily a statutory requirement. The Cradle Tourist Development Plan is not a statutory document ... but there is that note in No. 11, that the sewerage plan was a key recommendation but for it not to be drained into the World Heritage area.

I set out in my submission to you, 12 July, the pros and cons of both sites. I think that is probably all we can do as far as making you aware of some of the issues relating to the selection of the site, knowing full well now it is probably too late to change it but it is up to you to decide that. I just make those points to you because I think they were very key issues that should have been addressed much more thoroughly, much earlier in the stage rather than us taking actions to try to get this site either looked at and/or changed.

... Passing through now to that disused mill site, just to amplify more there, I consider it to be currently a contaminated site and with any contaminated site in the State the authorities need to take account of that and have it cleaned up. In view of the fact that that drainage, although it is a small soak that is running into the World Heritage area, I think is contaminated with hydrocarbons, it should be looked at. If this could be a recommendation from your committee it may alert the Environment department and Parks that they need to action that pretty quickly to avoid any contamination of the World Heritage site. It seems strange that they have turned their back on an actual pollution that is occurring uncontrolled, which is the old mill site, and yet they were not prepared to look at the sewerage works there where it could have all been cleaned up and the discharge could have gone the other way into the Iris system. That is probably enough on that.

... Turning to issue No. 4 - the inadequate precautions to prevent contamination of the Iris River catchment. This applies to the present system as has been presented to you. What I was concerned about there was that the dam footprint or the actual storage footprint for the lagoon is 15 000 square metres - that is 1.5 hectares - which is 3.7 acres. Mr Hall,

you would clearly realise what 3.7 acres is. It is a huge area. It has been explained to you that this was to safeguard against dry periods when the dilution required in the Pencil Pine Creek would be insufficient and so they would have to store the treated effluent. There are issues here that apply also to the Iris catchment, as any accidental overflow from this whole system will now go straight into the Iris catchment. To get into the Iris catchment it goes right through the local area plan - the area where this tourist development is to occur - so it could cause some huge problems unless that is looked at much more thoroughly by the engineers. There is nothing there to show where the overflow is likely to occur. They are just hoping that it will not. The Iris River goes down eventually into Lake Gairdner, where there is recreational fishing and camping. People drink the water there straight from the river. It also goes through a private nature reserve. Its classification is 'pristine'. That is the classification under the environmental management goals for Tasmania's surplus waters. There is a duty of care that the pristine nature of any of the Tasmanian rivers are to be maintained. I think some extra effort should be made to see that there are proper precautions to prevent any contamination of the Iris catchment. That is the point I wanted to make there: accidental spills, overflows, right through the sustainable tourism precinct.

The fifth key issue is the pipeline trench. I do not know whether you have not looked at that when you drove into the area or whether you realise where that is to go. But we have quite severe concerns about this. During the various presentations by GH&D and Parks to the stakeholders it was apparent that the trench was going to follow the Telstra line. I think everybody in the room at the presentation said, 'No, there have been enough problems with that Telstra line. There is enough disturbance there. Don't make it any worse than it is'. That is, I think, 3 metres wide. Now we are looking at almost double, up to 6 metres wide, utilising that same trench. What most of the stakeholders, and ourselves, said was, 'Why not follow the roadside and use the road edge, improve the ditch on the side of the road - which is already disturbed - and put a proper drainage system in. Have the trench and the pipe underneath that and have a spoon drain on top'. Then put a boardwalk on top of that - all the accommodation places want to get people off the road, which is very dangerous - and virtually follow the road. That would have an advantage of getting the machinery for the trench to utilise the already paved surface of the road. It would take up half the road, but this could be achieved quite easily by flagging off half the road, constraining some of that traffic and having people park back at the transit centre. At the same time, it would cover two very good issues. It would cover the fact that the people going from one accommodation area to the other could walk safely and it would be lit. Some of the services could be under the boardwalk and other services would be in the trench. This would be quite suitable.

There was an objection by DIER, who obviously did not want the bother of having anybody interfere with their road. They did not want the expense of having to redo the road, because it would mean some repaving

afterwards, and the disruption there. But DIER never had anybody come along to any of those presentations to discuss it with stakeholders. This is just another ongoing issue that the stakeholders have just been fed information without any opportunity to feed back responses to the proposals. It is pointless having a lot of these meetings that Parks arrange, unless it works two ways.

I think local stakeholders are going to be very cross that this trench is going to go across a lot of private land and that there will not be a boardwalk included in that. That is the location of it and I have pointed out some of the problems associated with putting that trench through the Telstra line in the latest submission I made on 22 August and also it is in my earlier one. But in addition to that it is putting a protective envelope on the main sewage pipe that is coming out of the park and linking up to the works.

The Henty Gold mine and other mines on the West Coast put these high-density envelopes around strategic pipes. They are not expensive. They are just like an envelope and if the pipe or the connections rupture there is that protection straight away. We are looking at 25 years to bury that pipe and a lot of things can happen in 25 years. So that should be a consideration that should again be looked at by the proponents of this.

Make DIER look in some detail at the location of that trench to go by the road. Okay, it is going to cost some money but whatever you do is going to cost money. If we are looking at a vision and a thing that is going to last 25 years, and we are spending \$12 million, let us do it properly. That is what we have been saying to Parks: do it properly, instead of this half measure which may require going back some time later, admitting that we put it in the wrong place and saying that we should have stuck it down the road, made the road a little wider and put a boardwalk there.

... Number six. This is now the storage lagoon of 3.7 acres or 1.5 hectares. I found in the DPMP that it is 15 000 square metres. I think in the submission made by GH&D they could not tell you what that area was, but it is 15 000 square metres. That is equivalent to 23 Olympic size swimming pools. Now, that is quite a large pond or lake or lagoon which I think has already been named by the locals. Again, that seems to be a huge capacity to hold the amount of water for that and I could not find that that lagoon had anything in the budget, but perhaps it is included in contingencies. No, that was the covering of it. It is the covering of the storage lagoon which would be impacted by flood rains and contamination possibly by wildlife. This may be an application that might have to be put up to you in the future but, again, I think it should be included right now so everybody knows what one is in for in this proposal.

I notice that the Devonport water supply at Kelsey Tier has a cover over it and that would be, I think, a similar area. It might be a bit smaller. The water storages are covered but anyway I think that should be included as

part of the costing just to point out to you folks exactly what is possible with various proposals.

Point No.7: charges need to be made known for connections and service fees. I noticed in the DPMP that existing development connection will not be compulsory for existing developments. I noticed I think in the presentation to you by GH&D that it would be compulsory for commercial enterprises but not necessary for everybody else.

The whole reason for putting in this essential service was for everybody to be connected and it is to share the cost and also to protect the environment. It seems rather bad planning if everybody is not going to be connected to that in the first instance or at some stage. It may be done in two stages. It is the expenditure that will be directed to each of the users that needs to be spelled out pretty clearly right now. There are land-holders in that area who are getting very jumpy about how much they are likely to be charged. They are quite supportive of the principle but, again, they are pretty uncertain about how much they are going to be charged.

One of the commercial enterprises said it would cost him \$30 per person per night to cover the running costs of the sewerage works. These figures can run away very quickly in a community like Cradle unless there are some very clear money costs put up very early on with this proposal. I think there is sufficient data that we have before us to indicate that if all the commercial enterprises connect, costs will be 'x' and if everybody connects it will be 'y' and that will give everybody some idea where they are heading. To have this multi-million dollar scheme going past the door people are going to get very, very jumpy and very hostile unless they get some proper feedback from the proponent.

I noticed Kentish Council has imposed a special condition on the bed and breakfast at Learys Corner. There is a clause there that says 'within 60 days of the Cradle Valley re-use, water must be connected' and there is a similar clause relating to the connection of the central sewerage scheme. So Kentish Council has put that in as a condition and that falls in line with the local area plan for the development in that area. That is on charges.

Point No. 8 is budgeting. This sewerage plant when it was first mooted was about \$4.7 million and is now \$11.7 million. It has changed so much and for very good reasons that we can appreciate but it is this changing and alteration of the scheme from its original inception right through to now that most people cannot get their heads around. If you look at the DPMP, you will see it is quite an involved and detailed document. I wrote a comment to the Kentish Council on that proposal as part of the consultation - 10 pages I think I put there, and there was no response at all. I just wonder how much of those comments have been taken into consideration. Some of these comments I am making again to you because this is another opportunity for the public to have input into proposals.

But, like your committee, I found that the raw figures of the budget and some estimates that were 18 months old did not provide sufficient detail to have any real meaning.

This leads me now into the consultation process. I consider it to be quite unsatisfactory, especially as the so-called steering committee is largely dormant and stakeholders' input is limited. I have pointed out here that the Cradle development tourist plan was evolved through very good consultation and very good input from a whole range of stakeholders, and that then produced that document which is quite important. One of the recommendations was to develop the central sewage treatment plant.

To my knowledge the steering committee has never formally endorsed the present membrane and, as its last meeting was in February 2006 - last year, that is more than a year ago, that is a year and a half ago - and this steering committee is presently in limbo and has not met for more than one-and-a-half years. Now I am on that committee representing the conservation trust so I know how often this committee has met and what the requirements of the steering committee could have been, had it been properly informed by Parks at every step of the way. It would have saved a lot of this hassle that we are still going through to get this resolved.

The steering committee, I think, has been ineffective and in my submission in July under section 8, I outlined the composition of that steering committee which was a little different to what Parks had indicated to you. Members of the steering committee had been informed that the land acquisitions had been completed prior to the end of 2005, which indicates that if the land acquisition was at the end of 2005, it was way before there had been any decision made as to the selection of the site or looking at the options.

It is a bit like the cart before the horse. Most of our concerns could have been resolved much earlier had Parks continued to effectively consult with the stakeholders and the steering committee at every step of the process. They had presentations, but presentations are only one way. The other way, of course, is to get feedback and Parks repeatedly would make a presentation, wave a document around, saying, 'This is a draft, this is available', and then they did not follow it up any more. You had to then try to get a copy of that by asking and sometimes you got it and sometimes you do not, or you only got half. It is this half-hearted approach to the stakeholders by Parks which makes people very uneasy.

I turn now to 10: the need for a properly constituted and resourced management committee. The recommendations in the Cradle tourism plan are Nos. 28, 29 and 30, which have been excluded from GH & D's submission, and which have been excluded from Parks'. I have given you a copy of that under attachment 2. You see very clearly there that 28, 29 and 30 relate to setting up of the management committee. Now, that is a key recommendation from that committee. The other key recommendation is the sewerage plant. The two go hand in hand. The committee needs to

be aware that this is a de facto management committee; it has not met since February 2006, which I mentioned. The application by the trust to have a representative on that committee did not occur until November 2005. So to say that this plan or the plans have been endorsed by the trust is quite mischievous. It certainly has not had that opportunity. Even at the March meeting of the steering committee in Sheffield, when I was not present, there was a presentation but there were no final plans submitted to that committee for ratification. As I mentioned, I supplied Kentish Council with detailed comments on the DPMP without any response.

It is interesting that with the stakeholder meetings - and these are quite separate to the steering committee meetings - the last one was in June this year. Prior to that it was July last year. There was an 11-month gap between meetings at a very critical time. There was an update by letter on 28 November. Prior to that there was a meeting every three to four months in 2005-06. So there were quite regular meetings and then all of a sudden they stopped after July last year. That should be highlighted to Parks; the steering committee has served its purpose with the Cradle Development Tourist Plan. It should now have a management committee for the whole area. It is not only about the sewerage works; there is a whole heap of things going on in the area that need to be properly overseen by a proper management committee with proper statutory requirements.

This leads me on to number 11, a key issue. I have no confidence in Parks' capacity to manage such a large, expensive project up to its commissioning. They have shown, in what I have given your committee, that they have been mucking around with this project for far too long. They do not have the ability to properly communicate to stakeholders and they have continued this methodology, if it is a methodology, of not properly communicating and receiving input from the stakeholders.

It is putting people offside, but we are the very people that should be onside with Parks because we do agree with many of the principles that the department is trying to pursue. It is a great tragedy that Parks have been allowed to continue with this project. It should be managed away from Parks because the whole of the infrastructure is something that is outside the park and certainly outside of the World Heritage Area. It needs to be managed by another department. That could be the Department of Economic Development or DIER or someone like that. Also there is a pecuniary interest because one of the users of the sewerage works will be Parks - a very large user. So they obviously have an interest in that.

That is the general thrust of my submissions to you. There are other points in it but I thought that I would concentrate on those in the time available. I think that I have explained the concerns of the trust and a lot of other stakeholders about how this project is being managed, how it is likely to be managed in the future, and the issues that concern us and that we consider should be addressed. The trust will certainly be pursuing this

in every possible way to see that these issues are brought to the public's attention and that there are measures taken to rectify the situation.

The Committee asked Mr Sims to confirm that the Steering Committee had not met for one and a half years and asked him to clarify the frequency of meetings prior to that. Mr Sims responded:-

That is right. I have given you a copy of the minutes of the last meeting, attachment 4. There has been no other communication to the steering committee from that date.

... November 2005 was when I represented the Trust and the next meeting was in March, so that was the frequency of those two meetings. Andrew might have a better idea of what occurred up to there perhaps.

The Committee put the proposition to Mr Sims that the Steering Committee was not functioning. Mr Sims responded:-

Not functioning at all, that is right. That was made quite clear also by Roger Jaensch from the Cradle Coast Authority at the meeting in Hobart in November. He considered it, amongst other things, to be a waste of time...

Whilst the Committee had pursued in the earlier hearing a number of the issues that Mr Sims had raised in writing, the following matters were further pursued regarding Mr Sims' evidence in relation to the trench, the Committee questioned the other witnesses as to whether a cost estimate had been calculated for the alternative. Mr Dodson responded:-

No, we did not actually work out the final cost but what needs to be appreciated is that the trench has to accommodate four pipes, so the trench is about 2 metres wide. You can imagine the impact that would have on the road during the construction period. A number of parts of the road are actually in a cutting so putting in the walkway that you requested would have had a very major impact on those sections of the road. There would be parts of the road in flatter areas where it would be less of a problem. It would not be an easy exercise to put the boardwalk there but we were not involved in looking at the boardwalk option as such. The trench in the road would be a major impact.

Mr Roberts added:-

This issue was a recurring topic at stakeholder meetings that were regularly held with both landholders and the interested Cradle people, who were not always at the same meeting. We investigated this as far as taking it to head of agency level because DIER were adamant that it was acceptable to them. The principal reasoning apart from what has just been said is that the road is a fairly narrow seal and that the depth of construction is not that deep. It is a road that has become subject to higher usage over the years and was not been built for that many to start

with. They felt that to dig a trench in would break down the integrity of the road and they wanted Parks and Wildlife to take on full accountability for any degradation of the road that might happen as a result of this. That option was put up through head of agency level and between the head of DIER and the head of our department it was agreed that the DIER decision would stand. So we did not follow that any further.

Later in the piece there was another rearguard action to put the ditch in the road through an area that had the most sensitive trees. We went back again and asked to look closely and again we received the same response.

The Committee questioned the witnesses regarding Mr Sims' assertion that the provision made for potential overflow may be inadequate. Mr Dodson responded:-

There are a number of contingencies. At each sewage pump station we have storage capacity for eight hours, if there is a breakdown with power or mechanically with pumps. Up at the treatment plant itself, within the treatment building, there is a small extra storage capacity there for about half a day. If that is filled we have a three megalitre HDPE-lined lagoon, which is equivalent to about six days future average dry weather flow. In addition to that we will be installing an overflow arrangement, so that if the 23 megalitre storage for the treated effluent is not all used, then it can be diverted into there. So there are a lot of belts and braces in that system. That is why we have the very large storage lagoon system up there that Mr Sims refers to as 1.5 hectares or 1.5 acres.

When questioned specifically as to whether the claim of Mr Sims was not correct, Mr Dodson responded:-

It depends of the circumstances. Taking reasonable precautions, trying to cater for the worst situation, I think what we have there is a reasonable thing.

Mr Roberts added:-

We talked about the budget ever-escalating from earlier estimates. One of the reasons the costs have gone up is the conditions being placed by the environmental regulations about all these fail-safe things. Each of them has cost money each time - bigger pump, well capacity, bigger protection and bigger storage dams. Part of the added cost of this system has come from the fact that we are looking at discharge into the World Heritage Area, which we are on the edge of. Parks and Wildlife are also managing the project.

Mr Dodson concluded:-

With this whole job there are pros and cons of doing it this way or that way and what we are trying to do is look at all the pros and cons and work out the least risk option. With the issue of building the plant down at the old mill site, basically it was judged on quite solid criteria, but we were in

a less risk situation in the site that we have adopted than down at the mill site.

The Committee questioned the witnesses as to when the last stakeholder meeting had been held. Mr Roberts responded:-

The last stakeholder meeting was held just recently. The one we had previously was in November or around about that time. The term stakeholder is the general public meeting we called at Cradle Mountain for anybody who was interested to come and hear about the project.

We have also been meeting with the 12 landowners, who are most directly related to this. This project in its present form has been submitted for environmental approval since September of last year, so the feeling was that there was no point having another stakeholder meeting while there was nothing to discuss because this was still going through the system. All the way through the most topical thing that we are managing is the end operator cost.

... The Kentish Council is a small council which is duty bound to try to cover their own costs. The problem they have is that they want to recover the depreciation charge.

When most councils in Tasmania build a system they spread the charges across the whole ratepayer base. In this case Kentish want to charge it back to the 12 land users. In all the discussions we have had, this greater sewerage and water review that the State Government has going will have a significant effect on the way this is managed.

... The Kentish Council is still designated as the end operator until something is changed. For the user charge to get to a reasonable level while there is low use of the system, as it is not up to its designed capacity, that depreciation charge will still be a problem and we will need to investigate that.

Returning to the issue of the management structure, the Committee questioned the witnesses as to what was the current status of the management committee and what role was envisaged for such committee in the ongoing management of the Park. Mr Roberts responded:-

The steering committee that is being referred to, the names have been used interchangeably in different styles. The steering committee came out of the enthusiasm and passion that came out of this first document when it was being championed by Jim Bacon and money was being thrown at this project. A lot of the earlier stuff was put in place and the big project was getting the sewerage system to ground.

The steering committee that Peter refers to, at the time he came to it, was a communication thing to the major regional stakeholders like Cradle Coast, Kentish Council. I think there was a friend of the Cradle's rep and Peter

and the Conservation Trust and I think that was about the size of it. As the project became more singularly focused on the sewerage scheme we were regularly still meeting with the Kentish Council, the Cradle Coast was occasionally coming to those discussions, we were regularly still meeting with landowners and occasionally with a stakeholder meeting.

So all these people were getting picked up, but it just was not through this steering committee. So that particular group was not managed through that. In a project-management sense, sitting above all this was a project control group - the head of agency and things like that - and they were making the major financial decisions. However, the steering committee could not make decisions on where the money was spent; it could advise or give input but at the end of the day it was a government decision because it was a government project.

When questioned as to whether an ongoing management committee, comprising representation from various interested parties was proposed to be constituted, the following exchange occurred:-

Mr ROBERTS - *There is not one current or planned at the moment. One of the problems through all this process has been that Parks and Wildlife were given this major infrastructure project, not willingly might I add. We tried to give it to DIER; DIER did not want it, State Development did not want it and they gave it to us to manage. We are wearing quite a few hats in this as a contributor to the scheme and as a stakeholder in the area and then operating in the development of this system. It has been quite a bit of a dance to keep in touch with all that. At this stage I am not aware of an overall committee.*

There is the Cradle Tourism Association, which is a gathering of the tourism operators. There are the stakeholder meetings, there are the Friends of Cradle, there are a lot of people having input into the area. When this was mooted

Mrs NAPIER - *So it is on a random basis.*

Mr ROBERTS - *Yes. This management committee as this plan was mooted was more on the style of a non-statutory body I suppose, that sort of overseeing, that type of thing. That was the concept but there has not been the will or the wherewithal to set it up.*

Mrs NAPIER - *The will or the time?*

Mr ROBERTS - *Well, it takes more than one government agency to get a group like that up and keep it going. When this was done, as I say, it was done under the banner of Jim Bacon up there saying 'This is my vision for the world'. That dropped off and we are managing it within the systems we have.*

DOCUMENTS TAKEN INTO EVIDENCE

The following documents were taken into evidence and considered by the Committee:

- Cradle Valley Centralised Sewerage Scheme – Submission to the Parliamentary Standing Committee on Public Works, Department of Tourism, Arts and the Environment dated May 2007;
- Peter Sims, submissionS dated 12 July 2007 and 19 August 2007;
- Dept of Tourism, Heritage & the Arts Cradle Valley Centralised Sewage Treatment Plant 32-11635;
- Email from Ray Dodson dated 24 August last entitled “Cradle Cost Estimate”;
- Organisational Chart and Steering Committee minutes; and
- Development Proposal and Environmental Management Plan.

CONCLUSION AND RECOMMENDATION

The proposed Cradle Valley Centralised Sewerage Scheme will replace two outdated treatment facilities in addition to a number of individual septic systems and is considered to provide significant environmental and socio-economic benefits to the Cradle Valley area. The proposal has been designed with a 25-year horizon, allowing for projected visitor growth over that time. One of the key environmental features of this sewerage scheme is the possibility for landowners to utilise treated water for non-potable uses such as toilet flushing and fire fighting. This has the potential to reduce the water consumption in Cradle Valley by up to 30%, an example of excellent sustainable environmental management in Tasmania.

This project is a key initiative to develop a centralised approach to wastewater treatment outside the World Heritage Area and to remove sewage from the WHA and treat at a centralized location to a tertiary level with high standards for quality of emissions.

The Committee is of the view that, on the evidence received from the proponents, the advantages of the proposed works have been established. The Committee is very concerned however, that the considerable reluctance to initiate this major infrastructure project and the apparently ‘unwilling’ eventual acceptance of carriage of the matter by the Parks and Wildlife Service has resulted in a less than enthusiastic consultative process. The Committee heard in evidence that the Steering Committee, comprised of representatives of the Kentish Council, Parks and Wildlife Service, Cradle Coast Authority, Friends of Cradle and the Tasmanian Conservation Trust, amongst others, had performed so well as an executive body and was the “driving force behind the development” that the decision was taken that the establishment of a Management Committee was unnecessary. The Committee subsequently was astounded to hear that the Steering Committee had not met since 14 March 2006. Whilst ‘stakeholder meetings’ had been held these were essentially for the dissemination of information by the proponents and a forum to provide feedback.

The Committee further heard that there were no plans for the establishment of a Management Committee.

The Committee is very concerned, on the evidence received, that the approach to this project may be symptomatic of a broader malaise regarding the management of the Cradle Valley itself and consequently urges the Government to ensure the formalisation of the management structure prescribed in the Cradle Tourism Development Plan.

The Committee recommends the project, in accordance with the documentation submitted, at an estimated total cost of \$11,900,000.

**Parliament House
HOBART
6 September 2007**

**Hon. A. P. Harriss M.L.C.
CHAIRMAN**