

**BASSLINK INTEGRATED IMPACT ASSESSMENT
STATEMENT**

**POTENTIAL EFFECTS OF CHANGES TO HYDRO POWER
GENERATION**

APPENDIX 13:

GORDON RIVER PUBLIC USE ASSESSMENT

Dr Lorne K. Kriwoken¹

June 2001

Prepared for



Hydro Tasmania
the renewable energy business

1. Lecturer, Centre for Environmental Studies, University of Tasmania; GPO Box 252-78, Hobart, Tasmania 7001 Australia

EXECUTIVE SUMMARY

The aim of this report is to ascertain the level of existing public use associated with the Gordon River and to make an assessment of how this level of public use may be potentially affected by Basslink.

The greatest number of tourist and recreational users are concentrated in the Lower Gordon River corridor, downstream of the Franklin River confluence, in the Tasmanian Wilderness World Heritage Area recreation zone. The major users of this reach of the Gordon River are cruise boats, float planes, rafters, kayakers, ocean kayakers, boaters and recreational fishers. The greatest number of tourists on the Lower Gordon River are the cruise boats with approximately 10,000 tourists per year. Rafters, kayakers, ocean kayakers and boater numbers represent approximately 600 to 800 per year. The number of tourists using float planes to gain access to the Lower Gordon River is approximately 2,000 per year. The number of recreational fishers is approximately 400 per year.

The corridor of the Middle Gordon River, from the tailrace to the Franklin River confluence, is a wilderness zone. This reach immediately downstream of the Gordon Power Station is not used by tourists and does not readily support recreational activities. In some rare cases the Middle Gordon River is accessed from the tailrace immediately downstream of the Gordon Power Station or from the Denison River using rafts and/or kayaks. Access to this region is restricted to very experienced parties.

In the last two years there has been an increase in research undertaken by Hydro Tasmania and consultants to Hydro. This research has been supported by small boats and helicopters. The research has concentrated on the Middle Gordon River, largely in the wilderness zone. Additional research has occurred in the Lower Gordon River on the meromictic lakes.

This report concludes that it is unlikely that the Basslink project on the Gordon River will significantly affect existing public use associated with tourism, recreation and research activities. The majority of public use is concentrated in the Lower Gordon River where the influences of Basslink will be negligible. Recreational activities, such as rafting, are undertaken on the Middle Gordon River in very small numbers. The aquatic management and monitoring of the Gordon River by Hydro Tasmania will require an ongoing commitment of researchers in the field. These researchers will continue to be supported by small boat or helicopter due to the problem of access to the Gordon River and its tributaries.

CONTENTS

1	Introduction	3
2	The Tasmanian Wilderness World Heritage Area	4
3	Tourism, Recreation and Research Activities on the Gordon River.....	6
3.1	Cruise Boats.....	6
3.2	Bushwalking.....	7
3.3	Rafting, Kayaking and Boating	7
3.4	Recreational Fishing.....	8
3.5	Float Planes	8
3.6	Researchers.....	9
4	Summary of Existing Public Use on the Gordon River and Changes to Public Use Arising from Basslink	9
5	Possible Future Developments.....	10
6	References.....	11

FIGURES

Figure 1:	The Gordon River Catchment in South-west Tasmania.....	3
Figure 2:	The Tasmanian Wilderness World Heritage Area.....	5
Figure 3:	Tasmanian Wilderness World Heritage Area Zoning.....	6

TABLES

Table 1:	Interstate and Overseas Visitors to the Gordon River – 1991 to 1999*	7
Table 2:	Franklin River Rafters – 1991/92 to 1999/00*	8

1 INTRODUCTION

The proposed Basslink project will enable Hydro Tasmania to export its hydro-electricity into the Australian National Electricity Market via an undersea power cable across Bass Strait. This proposal will change the pattern of demand for hydro-electricity and the way Hydro Tasmania manages its impoundments. Predicted electricity demand is likely to change the existing operational flow regime downstream of the Gordon Power Station. Hydro Tasmania is currently conducting a series of reports assessing the potential affect of Basslink on the Gordon River. This report should be read in conjunction with these background reports compiled for the Integrated Impact Assessment Statement for a complete overview of the Gordon River and its tributaries.¹

The aim of this report is to ascertain the level of existing public use associated with the Gordon River, from the Gordon Power Station to its mouth, and to make an assessment of how this level of public use may be potentially affected by Basslink (Figure 1). The report is concerned with public use from 1960, when the Gordon River was first explored for its hydro-electric potential, to the present. In the past 40 years tourism, recreation and research activities on the Gordon River have increased and these will be the focus of discussion. Aboriginal occupation, penal settlements, Huon pine cutting, whaling and mining activities that occurred on and adjacent to the Gordon River are covered in Appendix 12 of this report series – Gordon River Cultural Heritage Assessment (McConnell *et al*, 2001). The Tasmanian Wilderness World Heritage Area (TWHHA) and its natural and cultural values are described in Appendix 14 of this report series– Gordon River World Heritage Area Values Assessment (Kriwoken 2001).

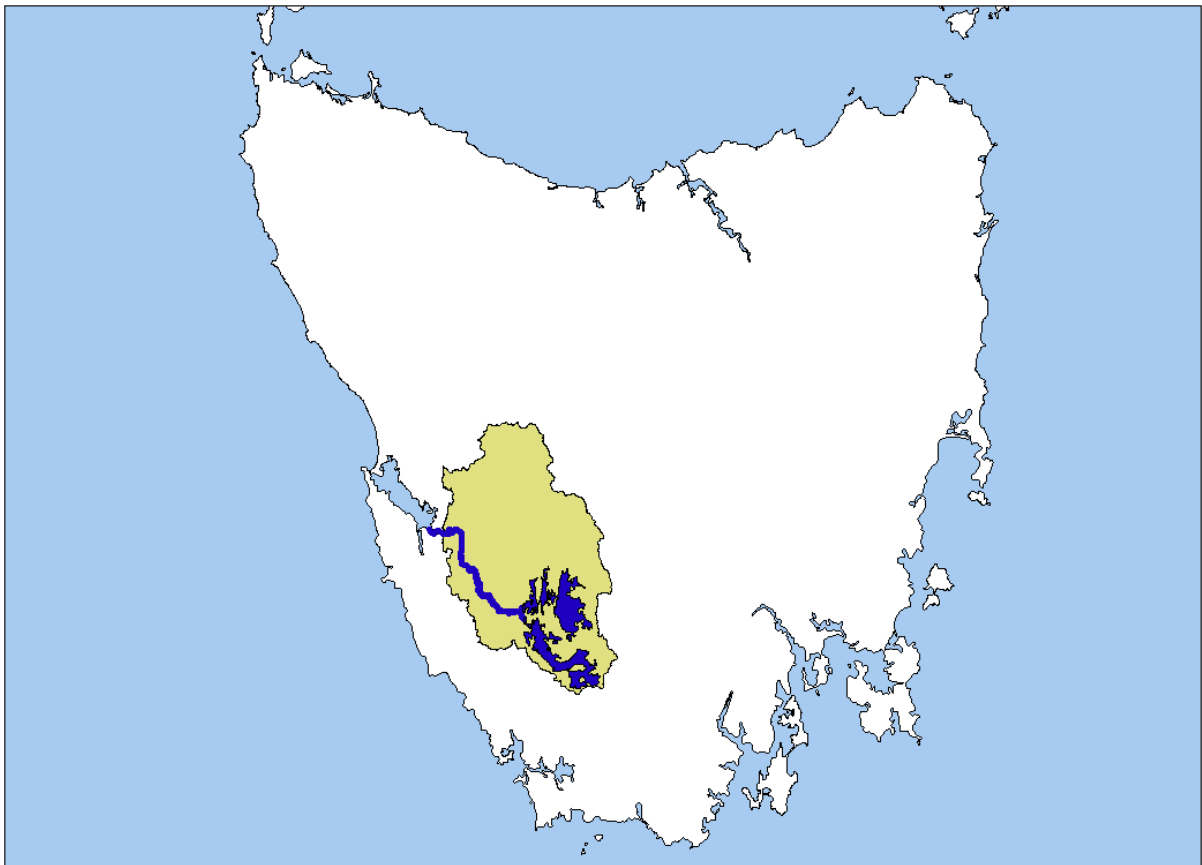


Figure 1: The Gordon River Catchment in South-west Tasmania

¹ The background reports include the following: hydrology, fluvial geomorphology, karst, vegetation, macroinvertebrates, fish, terrestrial fauna, cave fauna, water quality, cultural heritage, meromictic lakes, and Tasmanian Wilderness World Heritage Area natural and cultural values.

This report is divided into five sections. After this introduction the second section briefly outlines the TWWHA and an overview of the present zoning system adopted by the Tasmanian Parks and Wildlife Service for managing the Gordon River. Section three provides an overview of existing tourist, recreation and research activities on the Gordon River. Section four summarises the level of existing public use of the Gordon River makes an assessment of the potential changes to public use arising from Basslink. The final section presents possible future developments that could be considered on the Gordon River to enhance public use.

This report has been essentially a desktop exercise. Data on Gordon River cruise boats and Franklin River rafters and kayakers have been largely gathered from Tourism Tasmania's 'Tasmania Visitor Survey (TVS) (Tasmania 2000)' and the Tasmanian Parks and Wildlife Service's log books for the TWWHA and the Franklin River. Interviews were conducted with key informants in the Parks and Wildlife Service, Tourism Tasmania, the Tasmanian commercial rafting sector and Hydro Tasmania. In some cases estimates of public use are difficult to ascertain. This is especially the case with the number of float planes using the Gordon River because data are commercial-in-confidence and therefore not readily available to the public. There were also difficulties in estimating the numbers of recreational fishers as precise numbers are not kept by the fishing clubs. Estimates on the number of rafting and kayaking parties using the Gordon River were made by professional rafters and Parks and Wildlife Service personnel. Data on the number of researchers working on the Gordon River, and associated with Basslink, were gathered from Hydro Tasmania logistics data. In cases where a paucity of data exists estimates have been made to provide a relative level of public use.

2 THE TASMANIAN WILDERNESS WORLD HERITAGE AREA

Tasmanian Wilderness World Heritage Area has internationally and nationally significant natural and cultural values. The TWWHA represents 20 per cent of Tasmania's land mass (1.38 million ha) and contains the Middle Gordon Power Station which first produced power in 1978, four years before it was declared as a World Heritage Area (WHA) (Figure 2).

In 1982, the Western Tasmania Wilderness National Parks World Heritage Area was inscribed on the World Heritage list. This WHA comprised an area of 769,355 ha and included the Cradle Mountain-Lake St. Clair National Park, Franklin-Lower Gordon Wild Rivers National Park and the Southwest National Park. In 1989 an enlarged area was nominated, accepted and subsequently became known as the Tasmanian Wilderness World Heritage Area. An additional 20,114 ha was included as a result of the 1998 Regional Forest Agreement. Public use in the TWWHA is managed by the Tasmanian Parks and Wildlife Service through the 1999 TWWHA Management Plan (Tasmania 1999).

Public use in the TWWHA Plan is zoned along a spectrum from 'increasing naturalness and remoteness' to 'increasing infrastructure, development, recreation and tourism focus'. The main prescriptions for zoning in the TWWHA are wilderness, self-reliant recreation, recreation and visitor services zones and sites (Figure 3).

The 'wilderness zone' provides for limited recreation with no new facilities or mechanised access and represents approximately 76 per cent (1,090,135 ha) of the TWWHA. The Gordon River catchment, from the Gordon Power Station to Macquarie Harbour, is largely zoned wilderness (Figure 3). Only the immediate riverine corridor of the Gordon River, from the mouth of the river to the Franklin River confluence, is zoned a 'recreation zone'. This wilderness area (excluding the Gordon River corridor downstream of the Franklin River) is characterised by an area of high wilderness quality. The wilderness zone objectives are to: allow natural processes to operate with minimal interference; retain a challenging unmodified natural setting that suitably experienced and equipped people can visit for wilderness recreation and scientific purposes; and use wilderness as a primary means of managing, protecting and conserving World Heritage and other natural and cultural values (Tasmania 1999:57). Infrastructure such as toilets, huts and campsites are not promoted. There is an incongruity with the

Gordon River (from the tailrace to the Franklin River confluence) designated as a wilderness zone. This reach of the Gordon River is highly modified and subject to changes in flow according to hydro-electricity demands from the Gordon Power Station. This section of the Gordon River is however challenging for suitably experienced and equipped people visiting for wilderness recreation and scientific purposes.

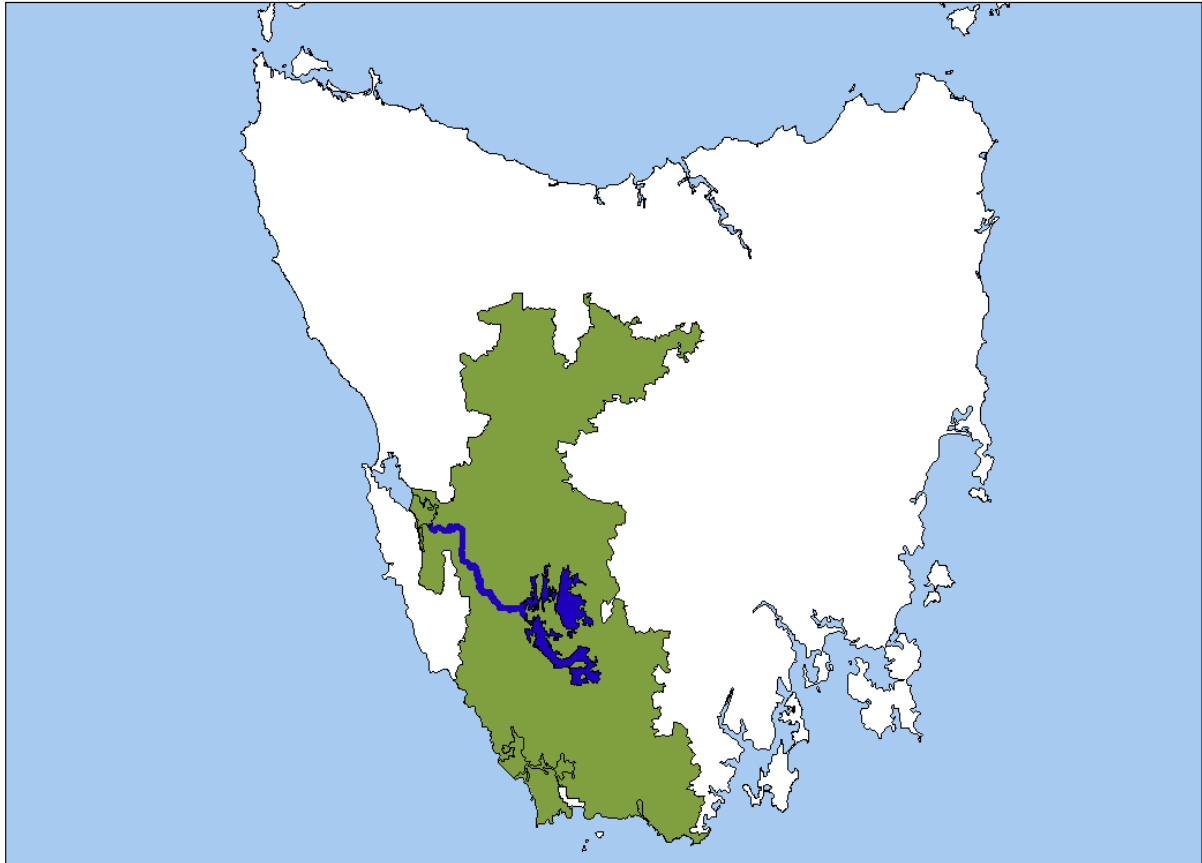


Figure 2: The Tasmanian Wilderness World Heritage Area

The ‘self-reliant recreation zone’ reserves areas of environmental sensitivity and/or high wilderness quality and represents approximately 12 per cent (168,989 ha) of the TWWHA. The relatively unmodified natural setting in this zone provides some of the most challenging bushwalking and fishing in the WHA. Examples of two self-reliant zones adjacent to the Gordon River are the length of the Franklin River and a small area near Mt. Sprent (southwest of Strathgordon). In the case of the Franklin River the self-reliant zone follows the river itself, and is surrounded by the wilderness zone.

‘Recreation zones’ provide a range of recreational experiences and are often popular with bushwalkers, boat users, anglers, climbers or rafters. Recreational zones represent approximately 12 per cent (168,989 ha) of the TWWHA. This zone can include relatively high levels of active day and overnight recreation and a range of associated infrastructure such as toilets, huts and campsites. The eastern half of Macquarie Harbour and Birchs Inlet are examples of areas zoned for recreation. In the case of the Gordon River, the recreation zone starts at the confluence of the Franklin River and follows the river corridor downstream to Macquarie Harbour. This recreational zone on the Gordon River is completely surrounded by the wilderness zone.

‘Visitor services zones and sites’ are areas where facilities are concentrated and the majority of visitors will experience the WHA and represent less than 1 per cent (2,495 ha) of the TWWHA. These zones have road access and often support regional visitor centres. There is no road access or regional visitor centres on the Gordon River yet small visitor service zones are found at Sir John Falls and

Heritage Landing. These two small visitor service zones are completely surrounded by the wilderness zone. Two other small visitor service zones are found on Macquarie Harbour at Kelly Basin and Sarah Island. Strathgordon, next to Lake Gordon, is one of three major visitor service centres within the WHA.

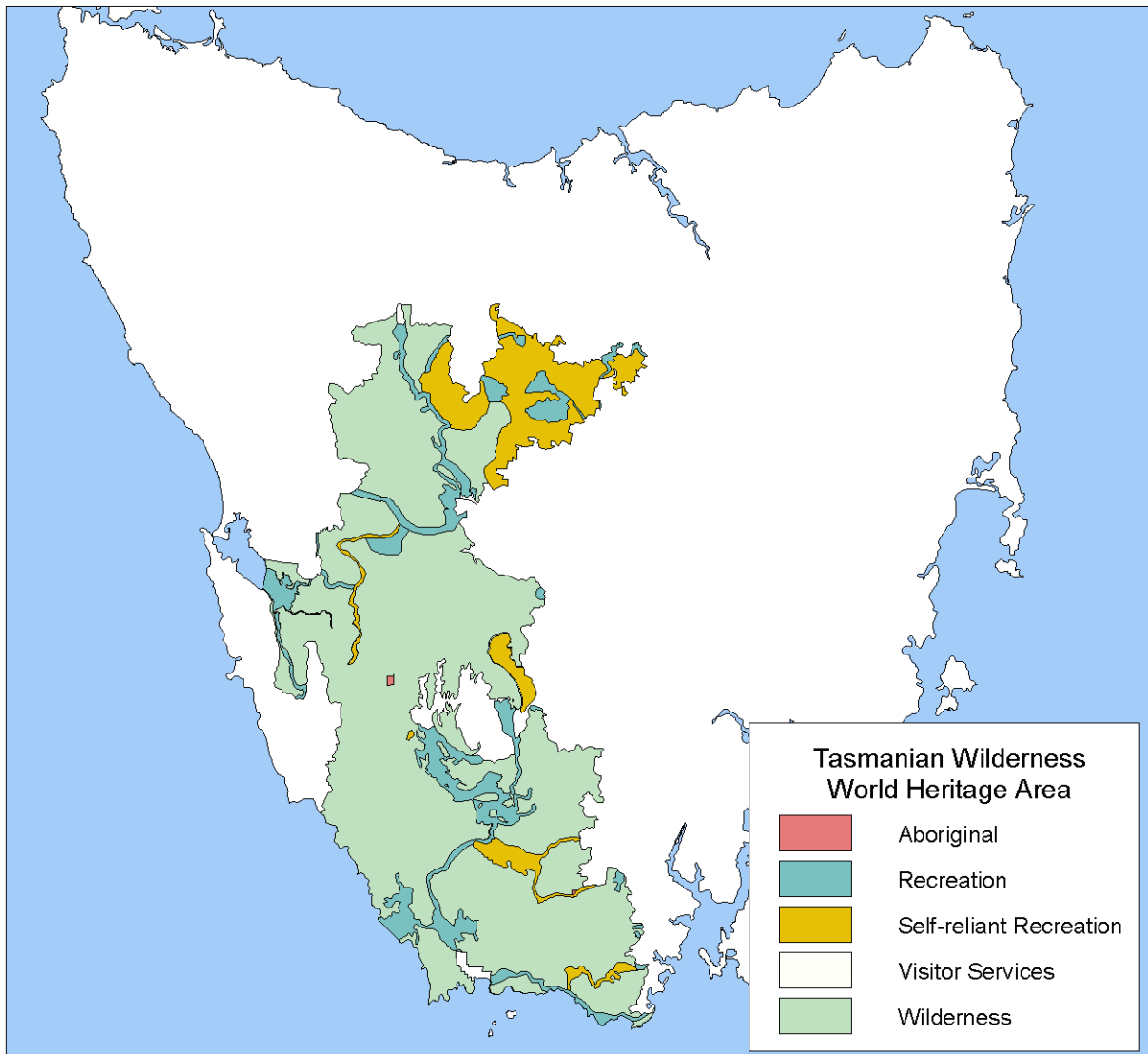


Figure 3: Tasmanian Wilderness World Heritage Area Zoning

3 TOURISM, RECREATION AND RESEARCH ACTIVITIES ON THE GORDON RIVER

3.1 Cruise Boats

The majority of human use on the Gordon River is associated with cruise boats that leave from Strahan, cross Macquarie Harbour, stop at Sarah Island, then venture upstream to the Lower Gordon River to Heritage Landing. Under the TWWHA Plan motorised boats can use Macquarie Harbour and the Lower Gordon River as far as Angel Cliffs. There is strict control of large commercial tourist vessels on the Lower Gordon River. Private vessels over eight metres also have to abide by those conditions set out for tourist vessels.

Two cruise boat companies operate from Strahan and both run half day and full day trips up the Gordon River. In both cases the cruise boats travel upstream to Heritage Landing which allows the passengers to go ashore and enjoy the interpretative walk. World Heritage Cruises operates the Wanderer III (200 passenger capacity) and the Wanderer II (160 passenger capacity). Gordon River Cruises operates the Wilderness Seeker (75 passenger capacity) and the James Kelly II (150 passenger capacity).

The total number of visitors visiting the Gordon River on these cruise boats is substantial. For instance, in 1999 there were 542,200 visitors to Tasmania, and of these visitors 20 per cent (95,320) visited the Gordon River on a cruise boat (Tasmania 2000). From 1990 to 1999 the number of visitors to the Gordon River as a percentage of total Tasmanian visitors has ranged between 18 to 23 per cent (Table 1). These data are gathered for the Tasmanian Visitor Survey which is a departure survey of passengers at Tasmanian airports and ferry terminals. Specific data on the precise number of cruise boat passengers are not available as they are commercial in confidence (Rundle 2000).

Table 1: Interstate and Overseas Visitors to the Gordon River – 1991 to 1999*

	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total visitors to Tasmania	404670	398130	421000	456400	480500	476600	489400	505100	542200
Gordon River % of total	18	21	23	22	22	20	19	18	19
Total Gordon River	74055	82811	95146	102234	103308	95320	92986	92938	103560

Source: Tasmania 2000. *After 1991 visitors were specifically asked if they went on a Gordon River Cruise.

3.2 Bushwalking

Bushwalking into the Middle and Lower Gordon River is extremely difficult. From the confluence of the Franklin River, upstream to the Gordon River Power Station, there are no maintained tracks and the forest is largely impenetrable. The TWWHA Management Plan zone designates the region as a wilderness zone supporting only limited recreation with no new facilities for mechanised access. Given these restrictions, the number of bushwalkers using the Gordon River region is very small.

3.3 Rafting, Kayaking and Boating

The Middle Gordon River from the tailrace downstream of the Gordon Power Station is regulated and subject to fluctuations. The upper reaches and the gorge sections of the Gordon River are limited to experienced paddlers. The Lower Gordon River from the mouth of Macquarie River to Sir Johns Falls is the most popular reach of the river and is used by rafters, kayakers and boaters. There are no precise details of total numbers of users on the Gordon River but some estimates can be made.

Commercial and private rafters use the Franklin River for paddling. In 1999 approximately 409 visitors used commercial rafting companies to paddle the Franklin River, whilst another 84 paddled privately. These 493 rafters would usually exit at Sir John Falls. From 1991/92 to 1999/00 the total number of rafters have ranged from a low of 236 to a high of 529 per year (Table 2) (Tasmania 2000).

Table 2: Franklin River Rafters – 1991/92 to 1999/00*

	1991/ 92	1992/ 93	1993/ 94	1994/ 95	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 00
Commercial	232	136	159	260	313	407	442	274	409
Private	58	100	115	64	152	133	87	61	84
Total	290	236	274	324	465	540	529	335	493

Source: Rundle 2000. *These data are from rafter registration books at the Collingwood River and permits for Mt McCall.

Increasingly commercial and private ocean kayakers are using Macquarie Harbour and the Gordon River for expeditions. Hells Gates Wilderness Tours, based in Strahan, offers two and four night trips on the Lower Gordon River, using the cruise boats to ferry kayaks and gear to Heritage Landing. The company largely rents kayaks and equipment to private kayakers. In some cases the company will provide guided tours with 4 to 6 kayakers. The number of ocean kayakers over the summer is low.

Rafters and kayakers have been known to paddle the Gordon River gaining access from three different locations. The first access point is immediately downstream of the dam face at the Gordon Power Station. Paddlers used the existing Hydro Tasmania road from the dam face next to the Gordon Power Station to gain access to the river. The trip exits at Sir John Falls and has taken 24 hours, however three days is more usual (Mitchell 2000). This trip only occurs when the Gordon Power Station has been completely shut down. With regard to the second access point, users paddle across Lake Gordon to Pearce Basin then haul rafts and/or kayaks across the Denison Range. They paddle the Denison River to the Gordon River, exiting at Sir Johns Falls, in three to six days. The third access point uses the Jane River, a tributary of the Franklin River, exiting at Sir John Falls. In these cases the parties are experienced bushwalkers and paddlers with excellent navigation and wilderness survival skills. Estimates vary over the number of parties that have paddled the Gordon River. Rundle (2000) estimates that over the last five years four parties (~20) would have paddled the Jane and Denison Rivers. Mitchell (2000) estimates approximately 60 individuals would have paddled the Denison River in the last five years.

3.4 Recreational Fishing

Recreational fishers visit the Gordon River to catch brown trout and the occasional escapees from fish farms in Macquarie Harbour, such as salmon and rainbow trout. The majority of fishing pressure is in the Lower Gordon River and the southern end of Macquarie Harbour. Some fishers have been known to visit and fish as far upstream as the Splits. However, the majority of fishers would only fish as far upstream as the Sprent River confluence and some fishers would venture upstream of the Franklin River to Big Falls.

The Gordon River Anglers Club operates a shack at Boom Camp, downstream of Lake Fidler from August to mid-December. The shack, which sleeps seven, was originally built in 1974 and was then used by 20 to 30 fishers. Presently the Club coordinates 21 fishing groups that use the camp, representing approximately 160 to 180 fishers (Wright 2000). From the log book at Boom Camp fishers catch approximately 300 to 400 fish each season. In addition to the fishers associated with the Club there are individuals who fish in Lower Gordon River. Total numbers of fishers are approximately 400 per year.

3.5 Float Planes

Wilderness Air Strahan is the only commercial float plane company operating from Strahan. The Cessna 185 float plane holds 4 passengers and is largely used by day trippers from Strahan to Sir John Falls, taking 80 minutes return. In the summer, with favourable operating conditions, the company

may run 6 daily trips. There is a sign along the Gordon River in the vicinity of Sir John Falls which warns river users of the float plane hazard.

Data on the number and frequency of float plane trips operating out of Strahan are commercial-in-confidence and the Commercial Licensing Section, Parks and Wildlife Service does not maintain data on landings (Rundle 2000). Assuming the peak summer season is approximately 120 days with an average of four flights per day and an average of three passengers per flight, the total passengers for the peak season would be approximately 1440. Assuming substantially fewer passengers in the winter, then total yearly passenger numbers could range between 2000 to 3000.

3.6 Researchers

During the early 1960s and 1970s a number of potential dam sites were investigated on the Gordon River upstream from Butlers Island. Drilling, surveying and hydrological assessments were undertaken by HEC personnel. The work was completed by crews based at camps along the Gordon River. The camps were accessed by boat from the Gordon River or by helicopter.

The most recent influx of researchers has been associated with the potential development of the Basslink project. This has meant an increased amount of scientific research conducted on the Gordon River in 1999 and 2000 (see Appendices 2 to 14). Research personnel have been largely drawn from Hydro Tasmania, the University of Tasmania and private consultants. In 1999 and 2000 Hydro Tasmania supported 566 person days on the Gordon River. The research has been either helicopter or boat based because of the problem of accessibility. Helicopters have landed on cobble bars in the river channel exposed at low flows when the Gordon Power Station has been shut down.

4 SUMMARY OF EXISTING PUBLIC USE ON THE GORDON RIVER AND CHANGES TO PUBLIC USE ARISING FROM BASSLINK

The aim of this report was to ascertain the level of existing public use associated with the Gordon River from the Gordon Power Station to its mouth and to make an assessment of how this level of public use may be potentially affected by Basslink

The greatest number of tourist and recreational users are concentrated in the Lower Gordon River corridor, downstream of the Franklin River confluence, in the recreation zone. The major users of this reach of the Gordon River are cruise boats, float planes, rafters, kayakers, ocean kayakers, boaters and recreational fishers. By far the greatest number of tourists on the Gordon River are the cruise boats on the Lower Gordon River with approximately 10,000 visiting each year. Rafters, kayakers, ocean kayakers and boater numbers represent approximately 600 persons per year. The number of tourists using float planes to gain access to the Lower Gordon River is approximately 2,000 per year. Whilst, the number of recreational fishers is approximately 400 per year.

The corridor of the Middle Gordon River, from the tailrace to the Franklin River confluence, is a wilderness zone. This reach immediately downstream of the Gordon Power Station is not used by tourists and does not easily support recreational activities. In some cases the Middle Gordon River is accessed from the tailrace immediately downstream of the Gordon Power Station or from the Denison River using rafts and/or kayaks. Access to this region is only by very experienced parties.

In the last two years there has been an increase in research undertaken by Hydro Tasmania and consultants to Hydro. This research has been supported by small boats and helicopters. The research has concentrated on the Middle Gordon River, largely in the wilderness zone. Additional research has occurred in the Lower Gordon River on the meromictic lakes in the wilderness zone, but immediately adjacent to the recreation zone.

This report concludes that it is unlikely that the Basslink project on the Gordon River will significantly affect existing public use associated with tourism, recreation and research activities. The majority of public use is concentrated in the Lower Gordon River where influences of Basslink will be negligible. Recreational activities, such as rafting, are undertaken on the Middle Gordon River in very small numbers. The aquatic management and monitoring of the Gordon River by Hydro Tasmania (with or without Basslink) will require an ongoing commitment of researchers in the field. These researchers will continue to be supported by small boat or helicopter due to the problem of access to the Gordon River and its tributaries.

5 POSSIBLE FUTURE DEVELOPMENTS

There are two possible future developments that are worth considering in the context of the Basslink project and the Gordon River. The first relates to Hydro Tasmania's ongoing commitment to research and monitoring on the Gordon River. This commitment could be further expanded by offering support for a collaborative research station at Strathgordon. This research station could be used by personnel from Hydro Tasmania, Parks and Wildlife Service, University of Tasmania and visiting researchers. The station could support ecological and environmental research focussed on the Gordon River, the Lake Gordon impoundment and wilderness and natural areas in the Tasmanian Wilderness World Heritage Area.

The second development worthy of further exploration is the potential for commercial rafting on the Gordon River. To date, the Gordon Power Station has never been shut down to accommodate commercial rafting (Stolp 2000). However, under Basslink it is possible that the Gordon River will be shut down more frequently during weekends. This may offer limited opportunities for commercial rafting companies. Rafting the Gordon River is considered as a very physically demanding river trip but it may have a limited commercial market (Mitchell 2000). Whilst there are issues of access, lead time and liability associated with commercial rafting, this business opportunity could be further examined.

6 REFERENCES

- Kriwoken, L.K. 2001. Appendix 14: Gordon River World Heritage Area Values Assessment, Basslink Integrated Impact Assessment Statement – Potential Effects of Changes to Hydro Power Generation, Hydro Tasmania, Hobart, Tasmania, Australia.
- McConnell, A., Stanton, S. & Scripps, L. 2001. Appendix 12: Gordon River Cultural Heritage Assessment, Basslink Integrated Impact Assessment Statement – Potential Effects of Changes to Hydro Power Generation, Hydro Tasmania, Hobart, Tasmania, Australia.
- Mitchell, G. 2000. personal communication, Director, Rafting Tasmania, Hobart, Tasmania, Australia.
- Rundle, S. 2000. personal communication, Research Officer, Statistics, Parks and Wildlife Service, Department of Primary Industries, Water and the Environment, Hobart, Tasmania, Australia.
- Stolp, S. 2000. personal communication, Operational Storage Manager, Hydro Tasmania, Hobart, Tasmania, Australia.
- Tasmania, 1981. Nomination of Western Tasmania Wilderness National Parks by the Commonwealth of Australia for inclusion in the World Heritage List, Tasmanian Government and the Australian Heritage Commission, Canberra, ACT, Australia.
- Tasmania, 1989. Nomination of the Tasmanian Wilderness by the Government of Australia for Inclusion in the World Heritage List, Commonwealth Department of the Arts, Sport, the Environment, Tourism and Territories and the Government of the State of Tasmania, Canberra, ACT, Australia.
- Tasmania, 1999. Tasmanian Wilderness World Heritage Area Management Plan, Tasmanian Parks and Wildlife Service, Hobart, Tasmania, Australia.
- Tourism Tasmania, 2000. Tasmania Visitor Survey, Tourism Tasmania, Hobart, Tasmania, Australia.
- Wright, J. 2000. personal communication. Coordinator, Gordon River Anglers Club, Devonport, Tasmania, Australia