



# Ross River Waterway Management System

Management of  
Recreational Use Plan

2015-2018

(Revised July 2015)



## **Traditional Owners**

Townsville City Council acknowledges the Aboriginal Traditional Owners of the plan area.

## **This Document**

This document sets out arrangements for the management of the use of the Townsville City Council controlled sections of the Ross River in the city of Townsville, Queensland, Australia.

## **Acknowledgements**

Townsville City Council wishes to acknowledge all the individuals and organisations that assisted in the preparation of this document and in particular Connell-Wagner for their work in preparing the preceding documentation upon which it is based – the 2005 Ross River Waterway Management System.

## Executive Summary

### Background

The Ross River is a significant natural feature of Queensland's most densely populated regional urban centre, Townsville. There are a number of pressures impacting the river, which require management and/or intervention to ensure that the waterway and its adjacent environs are not detrimentally affected. To achieve the management of this waterway, Townsville City Council has developed the Ross River Waterway Management System for the section of the Ross River between Ross Dam and Aplin's Weir.

Components of the Ross River Waterway Management System are:

***The Strategy*** - A framework for integrated waterway management for the freshwater sections of the Ross River (a waterway management strategy), including for sustainable recreation;

***The Plans*** - Management plans for significant elements & issues identified in the Strategy, one of which is this document – the Management of Recreational Use Plan.

### Document History

Revised: June 2013, June 2015 (current)

### Objectives

The objectives of the Ross River Waterway Management System are:

- Provision of a framework for integrated waterway management of the freshwater sections of the Ross River;
- Identification of issues, objectives and specific actions for conducting management works;
- Provision of guidelines for waterway management to achieve recreational usage consistent with sustainable
- natural resource management principles and practice.

### Existing Plans, Legislation and Studies

Existing management plans for the Ross River include:

- Commonwealth, State and Local Government Legislation and Regulations;
- Ross River Recreation Masterplan;
- Ross River Parkway: A Natural Seam In The City Landscape Masterplan Final Report;
- Riverway Master Plan Stage 1: Pioneer Park and Loam Island;
- City Council Planning Schemes;
- Urban Storm Water Quality Management Plans (USQMPs)
- Pest Management Plans; and
- Open Space for Sport & Recreation Guidelines - Queensland Dept of Sport and Recreation.

### What Impacts on the Ross River Waterway?

A summary of the issues and activities that impact on the Ross River Waterway includes:

- Weirs and the Ross River Dam;
- Private ownership;
- Recreational activities;
- Watercraft access nodes & usage areas;
- Municipal and commercial uses;
- Land development;

- Urban, commercial, industrial, & road storm water;
- Introduced plants and animals;
- Fish stocking.

### Drivers and Mechanisms for Management of the Waterway

The drivers of any management process are generally diverse, and include matters that are required by legislation, policy existing outside regulatory requirements, and voluntary initiatives arising from community concern or expectations. Drivers usually have political, economic, social, cultural and environmental components in varying degrees. The mechanisms for delivering management outcomes are partly dependent on the drivers as well as practical considerations for implementation e.g. risks associated with doing nothing.

For the Ross River, drivers and mechanisms for management of the waterway include

- Commonwealth, State and Local Government legislation, regulations and requirements
- Council's Role and Responsibilities;
- Community Based Regional NRM Planning;
- Open Space for Sport & Recreation;
- Creek to Coral initiative;
- Landcare and other community groups;
- Public perception and expectations; and
- Commercial considerations.

### Environmental Conditions

Existing land use along the Ross River waterway includes:

- Parks and open space (Council);
- Natural or remnant environment (Department of Natural Resources and Mines);
- Military Training Area (Defence);
- Water Treatment;
- Roads and infrastructure (Dept of Main Roads);
- Residential (Individuals);

There are sections of the river in which there is substantial remnant vegetation remaining that has not been significantly disturbed. The main stretch of natural environment borders the Mt Stuart Field Training Area and upper reaches of the study area. Most of this land is Unallocated State Land (USL). The land consists of the bed and banks of the river, associated tributaries and riparian zones.

There are a number of minor remnant vegetation patches further downstream where constraints have prevented the establishment of formal parkland. The areas are not pristine and have been subjected to some form of disturbance. The main issue associated with these areas is encroachment and spread of exotic plant species and pest animals.

Detrimental impacts (sediment, erosion and litter) from land development, road construction and urban runoff have been identified on the river. The level of impacts varies from minimal to significant. Aquatic weeds are also a significant environmental management issue on the Ross River.

### Environmental Outcomes

Determination of environmental values to be managed, desired environmental outcomes, and water quality objectives for the Ross River plan area has not been done formally, although the groundwork has been laid. The Australian Water Quality Guideline environmental values are;

- Ecosystem protection;
- Recreation & aesthetics;
- Agricultural water;
- Industrial water;
- Raw water for drinking water supply.

### Management of Use

There are a variety of potential uses of the Ross River Waterway. The management of these uses is intended to be formalised through the approach and management framework and systems set out in this plan. These uses include:

- Recreational fishing, swimming, walking, cycling, and picnicing;
- Activity related commercial applications such as vessel hire eg. canoes, kayaks, tinnies, etc;
- Environmentally related commercial applications based on sightseeing excursions, and bird watching;
- Loam Island - multi-use community facility and boat ramp with car park providing access to Black Weir;
- Recreational sport and recreation boating activities-eg rowing and waterskiing.

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## 1. Introduction

### 1.1 Background

Townsville City Council, Thuringowa City Council and NQ Water, originally developed the Ross River Waterway Management System for the section of river between Ross Dam and Aplin's Weir in 2005. Components of the Ross River Waterway Management System are:

**The Strategy** - *A framework for integrated waterway management for the freshwater sections of the Ross River (a waterway management strategy), including for sustainable recreation;*

**The Plans** - *Management plans for significant elements & issues identified in the Strategy, one of which is this document – the Management of Recreational Use Plan.*



Figure 1-1 Black Weir

Given the number of stakeholders involved with the Ross River, and the amount of planning already undertaken, the Ross River Waterway Management System focuses primarily on the integration of existing management initiatives and the coordination of projects and programs to achieve common management objectives.

### 1.2 Objectives

The objectives of the Ross River Waterway Management System are:

- Provision of a framework for integrated waterway management for the freshwater section of the Ross River;
- Identification of issues, objectives and specific actions for conducting management works; and
- Provision of guidelines for waterway management to achieve recreational usage consistent with sustainable natural resource management principles and practice.

### 1.3 The Need

The Ross River (Figure 1-2) is a significant natural feature of Queensland's most densely populated regional urban centre, - Townsville. There are a number of pressures impacting the river that require management intervention to ensure the waterway and environs are not detrimentally affected. Storm water run-off is one such pressure on in-stream water quality, with existing and developing residential and commercial sites in the study area catchment having direct and indirect impacts.

Development and existing activities in close proximity to the river also need to be managed to ensure the environmental and social values of Ross River are maintained.

The river and the riparian environment have been significantly altered in a number of reaches, however the river and environs remain a focal point for many active and passive recreational activities. Recreational and aesthetic qualities are important social values for a community, as they are an important factor in determining quality of life.

Townsville City Council recognises the importance of the river as a community asset and sees the need to maintain and improve the amenity of the river to ensure its sustainable use in all forms.



Figure 1-2 Plan Area

## 2. Planning Activities

### 2.1 Background

Areas requiring management and/or planning intervention for the Ross River Waterway Management System - Strategy are identified in Appendix A. Activities associated with the various planning components are summarised in Table 2-1.

Table 2-1 Management/Planning Activities

Activity	Stakeholders / Target Groups
Discussions with Traditional Owners to determine indigenous cultural heritage values of the plan area and potential for management involvement.	Wulgurukaba, Bindall and NQ Dry Tropics - Aboriginal Land and Sea Section.
Develop management objectives for the plan area including: <ul style="list-style-type: none"> <li>• Environmental values;</li> <li>• Desired environmental outcomes;</li> <li>• Water quality objectives; and</li> <li>• Water quality monitoring indicators.</li> </ul>	Townsville City Council and Dept. of Defence. Input to Creek to Coral Initiative or as a component of the Creek to Coral Water Quality Monitoring Working Group activities.
Formalise use management of Aplin's and Gleeson's Weirs including principles for the recreational users Code/s of Conduct.	Townsville City Council
Define recreational use activities and develop a management plan for recreational use in Black Weir.	Townsville City Council, Maritime Safety, and relevant recreational user groups.
Development of recreational users Code/s of Conduct.	Townsville City Council, Maritime Safety, and relevant recreational user groups.
Review/formalise the aquatic weed management plan for the study area taking into account recreational use and environmental values.	Townsville City Council. User groups may also be involved. Input from science community encouraged.
Develop a riparian zone management plan including pest control.	Townsville City Council, DNR&M, Landcare, community groups, Defence, and neighbourhood groups. Input from science community encouraged.
Develop principles for coordination of stormwater management activities.	Townsville City Council, Dept. of Main Roads and EPA.

### **3. Summary of Background Information**

#### **3.1 Background**

The Ross River Waterway Management System Strategy identified and described:

- Factors impacting the study area;
- Management drivers and mechanisms influencing the study area;
- The existing environment;
- Future uses of the waterway and near environs; and
- A framework for integrated management arrangements.

Information relevant to the management planning is summarised in this section and provides background information for the planning activities mentioned in Section 2.

#### **3.2 Legislation**

The following legislation has been identified as having an impact on the Ross River plan area and management decisions:

- *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act or EPBCA);*
- *State Development and Public Works Organisation Act 1971;*
- *Transport Infrastructure Act 1994;*
- *Transport Operations (Road Use Management) Act 1995;*
- *Integrated Planning Act 1997;*
- *Townsville City Council (Douglas Land Development) Act 1993;*
- *Local Government Act 2009;*
- *Environmental Protection Act 1994;*
- *Environmental Protection (Water) Policy 2009;*
- *Fisheries Act 1994;*
- *Fisheries Management (Freshwater) Plan 1999;*
- *Water Act 2000;*
- *Transport Operations (Marine Safety) Act 1994;*
- *Vegetation Management Act 1999 (And Land Act);*
- *Nature Conservation Act 1992; and*
- *Land Protection (Pest and Stock Route Management) Act 2002.*

A variety of legislation applies to waterways and surrounds which influences management responsibilities and requirements. In practice, each situation needs to be interpreted on an individual basis whilst being mindful of the interrelationships with adjoining areas, assets and activities. Where a waterway system is involved, management responsibility can appear less demarcated due to the seeming overlap of responsibility, or conversely, to the lack of definition of responsibility and, in some cases, the lack of specificity of policy or legislation to a situation.

#### **3.3 Issues and Influences**

The main issues and influences on the management of the Ross River plan area are discussed briefly below. A comprehensive list of the issues identified from literature reviews and consultation is included in the Strategy document.

#### **Upgrade of Ross River Dam**

The dam upgrade program, which was completed in 2007, involved lowering the spillway, fitting flow gates, installing sand filters and supporting earth fill, augmenting wave-protecting rockwork and associated works.

The upgrade is not expected to have any major influence on the Ross River and will provide for greater flow control and retention capacity in the event of a significant wet season.

### **Roads**

Most sections of the study area do not have sealed roads running 'parallel' with the river. The notable exception is the Riverway Drive from Gregory Street, Condon to Allambie Lane, Kelso. Whilst storm water runoff from any sealed road has potential to add pollutants to the storm water drainage system and subsequently to receiving waters, the potential impact is greater where the distance between roads and receiving waters is negligible i.e. there is little chance for pollutants to be 'filtered' out, settle or be adsorbed before reaching receiving waters. Storm water systems are the main link between roads and the river and require further consideration in that context.

The Douglas Arterial Road has had some impact on the Ross River at the bridge abutments. The bridge will have an ongoing influence on waterway activities.

### **Electrical Power Lines**

Electrical power lines cross the river in three locations and are not seen as a significant influence on river management under most circumstances.

### **Residential Areas**

Residential areas are generally set back from the river and have parks and open space and/or roads between them and the river. The main exceptions are the stretches of river between Allambie Lane, Kelso, and Ross Dam Park, and in the vicinity of Moondarga Drive, Cranbrook, above Gleeson's Weir, where residential blocks adjoin the river

The lineal open space network is interrupted in these areas and raises some issues regarding management of riparian areas and public access versus private rights.

### **Residential Development**

The main residential development influencing the study area is at Douglas (Riverside Gardens). It is a unique situation as the development proceeds under a specific piece of State legislation and is outside 'normal' development planning and assessment processes.

Public consultation identified the loss of riverside vegetation as a major concern associated with the development. There are also issues associated with construction activities especially sediment and erosion control. Ongoing influences will include expectations of residents with respect to activities in the surrounding environment, including Ross River.

### **Riverway and Ross River Parkway**

These are projects of Townsville City Council and are shaping the use and management of the land adjacent to the river and are subject to studies and environmental management plans designed to minimise detrimental impacts on the river.

### **Recreation**

Ross River holds special values within the community of Townsville. The river provides for a range of recreational activities for residents and for visitors to the region. Recreational activities associated with Ross River include those that physically occur within the river, and those that take advantage of

the amenity and scenic values that the river offers. Popular recreational uses incorporate both passive and active recreation and include:

- Cycling/Walking/Jogging
- Swimming
- Picnics/Barbecues
- Fishing
- Triathlon events
- Quiet Relaxation
- Canoeing/Rowing/Kayaking
- Power boating
- Waterskiing
- Cultural events

### Department of Defence Training Activities

The Department of Defence uses the river adjacent to the Mt Stuart Field Training Area (MSTA) for activities such as:

- River crossing training (approximately four times a year);
- Water training;
- Canoeing; and
- Diving (once per 12-18 months).

These activities are accompanied by guidelines and protocols, which adequately manage environmental and socio-economic impacts.

### Aquatic Weeds

Townsville City Council Maintenance Services engage Townsville Water to undertake aquatic weed control in all three weirs as part of a whole of catchment approach to management. This management role results in social and environmental benefits for recreational users and the broader community. Weed control also contributes to Black Weir's capability of delivering adequate raw water quality to enable treatment to the standards required by the Australian Drinking Water Guidelines (NHMRC and ANZECC 1996) when required.

### 3.4 Tenure and Management Responsibilities

The main owners or managers of the Ross River and its environs are listed Table 3-1.

Table 3-1 Tenure of the Plan Area

Owner / Administrator / Manager	Land / Asset location and (legislative power)
State of Queensland (Dept. of Energy & Water Supply)	Beds and banks of waterways measured to the high bank
Townsville Water	Land in the vicinity of Ross Dam and impounded water.
Townsville City Council	Black, Gleeson's and Aplin's Weirs and impounded water.
Townsville City Council	Property adjacent to the river above the high bank
Individuals	Property adjacent to the river Allambie Lane to Ross Dam Park (north bank).
Townsville Water	Property adjoining the Douglas Water Treatment Plant.
Dept. of Defence - Commonwealth of Australia	Property adjacent to the river from the Water Treatment Plant to Ross Dam (south bank)

In general, the management of the land and associated assets is the responsibility of the landowner whether that is an individual, a company, local government, State Government or a Commonwealth Government agency.

### 3.5 Land Use

The main land uses adjoining the river are:

- Parks and open space (Townsville City Council);
- Natural or remnant environment (Department of Natural Resources and Mines);
- Military Training Area (Dept. of Defence);
- Water Treatment (Townsville Water);
- Roads and infrastructure (Department of Main Roads);
- Residential (individuals).

#### Parks and Open Space

This broad land use category encompasses a range of characteristics and associated uses as outlined in Table 3-2.

Table 3-2 Parks and Open Space Use and Management

Type of land	Description	Management Arrangements
Formalised open space	Planted areas, often with exotic species, with lawns and defined borders.	Constructed and maintained by departments of local government. Some parks may have been established by service clubs such as Apex and Rotary, or by developers by arrangement with Council.
Playing fields	Sports fields and ovals, essentially consisting of grassed open space.	Generally constructed and maintained by Infrastructure Services department of Council and sporting clubs.
Walking paths	Paved, concreted, bitumen or other formed walking paths and tracks. Informal walking paths also exist and are typically worn areas traversing open space where formal tracks do not exist.	Generally constructed and maintained by Infrastructure Services department of Council. Some constructed by developers by arrangement with Council.
Bikeways	Paved, concreted, bitumen or other formed pathways for bicycle use. As with walking paths informal bike paths exist. Dual bikeways/walking paths are common due to the expense of constructing and maintaining two separate systems.	Generally constructed and maintained by Infrastructure Services department of Council. Also constructed by developers by arrangement with Council.

Facilities and furniture	This is a broad category covering all the non-natural features installed for recreation, safety and amenity purposes. Includes seating, tables, barbecues, play equipment, toilets, signage, bollards and other barriers, viewing platforms, fishing platforms and ship (boats, canoes etc) launching facilities.	Usually constructed and maintained by Infrastructure Services department of council but may also be installed by developers, service clubs, community groups, commercial operators or individuals, by arrangement with Council and/or other relevant authority.
Riparian areas	The section between the water and the high bank, which depending on the topography, may be left untended or incorporate some elements of other parks and open space land use categories, usually with the exception of formal parkland and playing fields, and structures susceptible to flood damage.	Depending on the situation areas may be unmanaged or maintained by Council (Infrastructure Services and/or Integrated Sustainability Services departments - natural area management teams), community groups, developers, individual land owners.
Re-vegetation sites	Usually sections of the riparian zone where the original vegetation has been removed or degraded and a need is seen to restore the area using native vegetation endemic to the site.	Generally instigated by community groups, often supported by and in conjunction with local government. Council approval, or approval of the relevant landowner, is required prior to commencement of works. Maintenance is carried out by community group members and other volunteers, and Council natural area management teams, sometimes with additional labour supplied by training programs including; Green Corps, Community Jobs Plan and Work for the Dole. In some cases, Councils TCC Maintenance Services department, maintain sites in conjunction with natural area teams and community.
Natural areas	These are areas that are relatively undisturbed associated with the upper reaches of the Ross River study area generally in the region between property boundaries on either side of the river where there is no continuous expanse of water, and between property boundaries and the river in other areas.	Relatively unmanaged with the exception of perceived strategically important areas such as Corveth's Waterhole where community group activity and activity supported by community groups and Councils is carried out on a semi-regular basis i.e. incorporated in non-continuous and separate projects.

Access areas	Open space, tracks or roadways maintained to enable access to the river, facilities or other areas for recreation purposes and to enable management and maintenance operations to be carried out.	Identified in planning processes to facilitate ongoing management activities and recreational access. Areas usually physically managed by Councils and also maintained in their planning documents and processes.
Parking areas	Dedicated areas for vehicle parking by visitors to the river environs.	As for access areas.
Clubhouse and equipment storage facilities	These are usually setback from the waterway to avoid any flooding associated issues. These are usually owned or occupied by organisations using the river and environs for recreational purposes such as rowing and canoeing clubs. May be housed with maintenance facilities.	Management depend on the facility owner and arrangements made between the facility owner and the user, if separate entities. Management and maintenance may be a function of Councils, clubs or community organisations, or some combination of these.
Maintenance facilities	As with clubhouse and equipment storage facilities these are usually situated in areas where flooding is not a problem. Usually associated with park maintenance and may consist of a compound with maintenance equipment e.g. mowers, and stockpiles of materials such as mulch and topsoil.	Managed and operated by Councils. May have some arrangements with community groups or other organisations for storage and or co-use of equipment or facilities.

Parks/open space land use include the flagship amenities of Townsville City Council:

- Riverway, and
- Ross River Parkway.

Townsville City Council contributes to the Landcare Strategic Re-vegetation Project, which provides support to community neighbourhood groups carrying out re-vegetation works in their local areas. Significant re-vegetation sites are listed in Table 3-3.

Table 3-3 Significant Re-vegetation Sites

Site	Works	Participants
Harmony Park, near Black Weir	Re-vegetation	Weir State School
Park below Black Weir	Re-vegetation	Work for the Dole, and Wet Tropics Reforestation Program
Loam Island	Weed clearing/control	Work for the Dole team/s
Corveth's Waterhole, downstream of Ross Dam	Weed control and supplementary	Green Corps, and Landcare Strategic Re-vegetation Project
Bushgarden, near Aplin's Weir	Re-vegetation	Townsville Urban Production and Landcare Group (TUPALG)
Kirrang Court	Re-vegetation	Landcare Strategic Re-vegetation Project

Marabou Court	Re-vegetation	Landcare Strategic Re-vegetation Project
Endeavour Creek	Re-vegetation	Landcare Strategic Re-vegetation Project
Isabella Court	Re-vegetation	Landcare Strategic Re-vegetation Project

The primary biological management areas of the Ross River waterway are the aquatic environment and the riparian zone. Both areas influence each other. There are sections of the river where a significant portion of remnant has not been cleared. The main stretch of natural environment borders the Mt Stuart Field Training Area and upper reaches of the study area. Most of this is Unallocated State Land. The land consists of the bed and banks of the river, associated tributaries and riparian zones.

Figure 3-1 illustrates the influence of the weirs on the structural characteristics of the Ross River below Ross Dam and gives an indication of already delineated management zones associated with the water bodies.

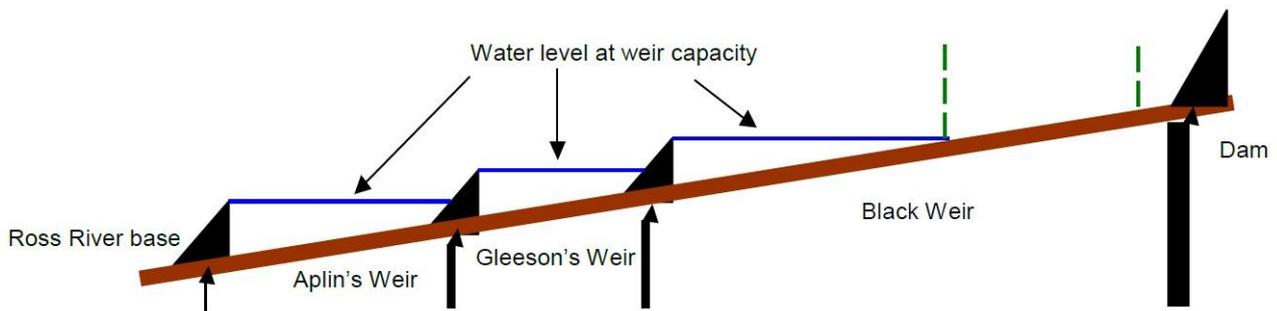


Figure 3-1 Schematic diagram of Ross River Weirs

Table 3-4 Summary of institutional arrangements

Management area / Activity	Responsible Bodies	Legislation / Policy	Arrangements
Activities likely to have a significant impact on environmental matters of national significance	All	(Commonwealth) <i>Environment Protection and Biodiversity Conservation Act 1999</i>	Proposed development and other activities are referred to the Commonwealth to determine the level of assessment required.
Use of weir pools – Black, Aplin’s and Gleeson’s	Townsville CC	<i>Local Government Act 2009</i>	Townsville CC is able to make local laws with regard activities associated with the use of the water body. This is the basis for the permit system and zones.
Weir and weir pools – Black, Aplin’s and Gleeson’s	Townsville CC	<i>Local Government Act 2009</i>	Townsville CC has responsibilities for the weirs and water bodies e.g. Structural integrity and management of recreational activities.
Water safety and access	Department of Transport and Main Roads - Maritime Safety Queensland (MSQ), Department of Agriculture and Fisheries - Boating and Fisheries Patrol (QBFP) and Qld Police Service (QPS)	<i>Transport Operations (Marine Safety) Act 1994</i> and subordinate legislation	MSQ administers water safety rules, safety equipment requirements, vessel registration and operator licensing, including commercial enterprises such as charter boats. In conjunction with enforcement partners QBFP and QPS, MSQ investigates and polices maritime laws. The maximum speed limit for Ross River waters between Aplin’s Weir and Black Weir is 6 knots for all motorised vessels except vessels operating as support vessels to rowing craft underway. A 6 knot speed limit also applies to parts of Black Weir. The maximum speed limit outside the 6 knots zones is 40 knots.
Recreational and commercial fishing	DPI Boating and Fisheries Patrol	<i>Fisheries Act 1994</i> and <i>Fisheries Management (Freshwater) Plan 1999</i>	DPI&F administers the Act and subordinate legislation which defines allowable fishing activities including the type of equipment that can be used, type and number of fish to be taken and seasonal closures.

Fish stocking activities	Twin Cities Fish Stocking Society DPI Boating and Fisheries Patrol	<i>Fisheries Act 1994 Management Plan for the Twin Cities Fish Stocking Society Inc. - Period 1999-2004</i>	Twin Cities Fish Stocking Society (TCFSS) is the body with the permit to release native fish into the weirs in accord with their management plan. TCFSS is also a member of the Fish Watch Advisory Committee, a group formed to promote sustainable recreational fishing across the region.
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Management area / Activity	Responsible Bodies	Legislation / Policy	Arrangements
Weed control - aquatic	Townsville CC	<i>Land Protection (Pest and Stock Route Management) Act 2002</i>	Responsibility for aquatic weed control in all weir pools. Only declared plants are required to be controlled by legislation however general weed control serves recreational activities and environmental purposes.
Weed control - terrestrial	All landholders and managers	<i>Land Protection (Pest and Stock Route Management) Act 2002</i>	Under the Act all landholders/managers are responsible for the control of declared plants on property under their control. DNR&M administers the Act with most of the responsibility for compliance devolved to local government. Under the Act landholders adjoining riparian areas are responsible for weed control to the edge of the water.
Pest animal control	All landholders and managers	<i>Land Protection (Pest and Stock Route Management) Act 2002</i>	Under the Act all landholders/managers are responsible for the control of declared animals on property under their control. Institutional arrangements as for Terrestrial weed control.
Bed and banks of the Ross River	Dept. of Natural Resources and Mines (DNR&M)	<i>Water Act 2000</i>	DNR&M administers the Act and assesses proposals and issues permits for activities, which will cause disturbance to the bed and banks of waterways. This includes extraction of sand and gravel and construction of temporary bunds for construction purposes.
Water extraction	DNR&M	<i>Water Act 2000</i>	Approval is required for the taking of water or interfering with flow.

Vegetation management	DNR&M	<i>Vegetation Management Act 1999</i> <i>Land Act 1994</i> <i>Forestry Act 1959</i> <i>Local Government Act 2009</i>	Management of native vegetation is provided for under various Acts and subordinate legislation, depending on the tenure of the land affected. Interfering with remnant native vegetation requires approval and may also be the subject of a development application. Councils can make local laws about vegetation as long as they are not inconsistent with other legislation.
Development, including a material change of use, sub divisions, associated works, road construction and other infrastructure	Local government and various other agencies	<i>Integrated Planning Act 1997</i> <i>State Development and Public Works Organisation Act 1971</i> <i>Transport Infrastructure Act 1994</i>	Development applications are generally assessed under the Integrated Planning Act (IPA) 1997 unless the development is State infrastructure and/or on Crown land, in which case it may be subject to the state Development and Public Works Organisation Act 1971 and/or Transport Infrastructure Act 1994. Current residential development at Douglas is governed by the Townsville City Council Douglas Land Development Act 1991 in place of IPA. A variety of other legislation may come into play depending on the type of development proposed and the necessity for additional approval/s.
Stormwater	Local government, Environmental Protection Agency Community	<i>Environmental Protection Act 1994</i> <i>Environmental Protection (Water) Policy 2009</i>	Responsibility for urban storm water management is devolved to local government by the Dept. of Environment and Heritage Protection (DEHP). Councils are required to develop and implement environmental plans for urban storm water management. All members of the community have a general duty not to cause environmental harm, which includes via storm water.
Land management	Landholders		Some formal and informal arrangements generally between Councils and community groups involving the re-vegetation and maintenance of Council land.
Nature conservation	Landholders	<i>Nature Conservation Act 1992</i>	Administered by the DEHP. No known arrangements in the plan area.

## **4. Planning for Management of the Ross River Waterway**

### **4.1 Introduction**

Management planning has been a two-stage process commencing with the investigation of the issues and development of the *Ross River Waterway Management Strategy* in the first stage. The development of management plans and/or frameworks builds on the first stage and have been done through consultation with the landholders/managers of Ross River and the adjacent lands (refer to Section 6). The main management areas and issues to be addressed for each management area are discussed below.

### **4.2 Management Objectives**

Management objectives will be determined individually for each of the management areas as part of the planning and consultation process. Management objectives for the overall study area are discussed in Section 5.

### **4.3 Black Weir Pool**

The management of Black Weir pool has become more complex as development has extended upstream. While Townsville City Council is the manager of both the weir pool and the weir, the management responsibilities and activities of Townsville City Council, and other adjoining landholders/managers, must be considered when developing management arrangements.

The Townsville City Council management of the use of these weir pools is a key component of the management of Ross River. Development of recreational users' Code/s of Conduct, and Local Laws, consistent with Council's management of use are actions arising from the development of the management of use framework that this document presents.

### **Townsville Water and the Douglas Water Treatment Plant**

Townsville City Council is the owner/manager of Black Weir and the water body (weir pool) contained by the weir. The Black Weir remains as an emergency water supply storage in the event that water from Ross Dam is not available. At capacity there is enough water behind Black Weir to supply the water needs of Townsville, via the Douglas water Treatment Plant, for approximately two weeks. The pump used for emergency water supply is located adjacent to the water treatment plant.

The Douglas Water Treatment Plant (DWTP) occupies a relatively small section of the riverbank upstream of Black Weir. It is the major water treatment and storage plant and a key asset in the water supply system for Townsville. The water travels 9.2 kilometres from Ross River Dam to the DWTP, in a 1.22m diameter concrete pipe. On average the DWTP treats 150ML of water daily, up to 230ML a day.

Environmental compliance is generally limited to the discharge of backwash water to the river, which is subject to a permit issued by the EPA. Water used to backwash filters at the treatment plant has traditionally been released to Ross River helping maintain water levels in Black Weir. Townsville Water is implementing infrastructure upgrades to achieve zero discharge in the future, with the exception of extraordinary circumstances, in compliance with Environmental Protection Agency requirements defining new operating procedures.

### **Recreation**

Construction of the Douglas Arterial Road Bridge and development of the Riverway project has altered the recreational profile of the river and is the catalyst for revision of past use management arrangements.

#### **4.4 Aplin's and Gleeson's Weir Pools**

The responsibility for Gleeson's Weir and Aplin's Weir, and the associated water bodies, was handed over to Townsville City Council in 2001. As they are not required for water supply, it is appropriate for Townsville City Council to manage these weirs and their surrounding areas.

The Townsville City Council management of the use of these weir pools is a key component of the management of Ross River. Development of recreational users' Code/s of Conduct, and Local Laws, consistent with Council's management of use, are actions arising from the development of the management of use framework that this document presents.

#### **4.5 Indigenous Issues and Management**

The indigenous Traditional Owners currently have limited involvement in the management of Ross River. The indigenous cultural heritage values associated with the river are also relatively unknown as no specific literature was discovered during the course of this study. Some determination of the role Traditional Owners would like to play in the future management of the river is required in association with an assessment of the cultural heritage values of the waterway and adjacent lands.

#### **4.6 Riparian Area Management**

Management of the riparian zone includes:

- Maintenance of existing parks;
- Pest control, both animal and plant;
- Re-vegetation and management of natural areas;
- Construction of new facilities; and
- Ensuring access to the river for recreational and management purposes.

To enable the management of these elements it is useful to divide the riparian area into a number of management zones. Proposed management zones are:

- Black Weir Natural Areas (includes Dept. of Defence land);
- Residential development (Riverside Gardens);
- Townsville City Council property, parklands and adjacent riverbanks (includes Riverway);
- Douglas Water Treatment Plant.

#### **4.7 Aquatic Weed Management**

Management of exotic and native aquatic plants is an ongoing issue due to the altered nature of the waterway and the abundance of introduced plant species. Part of the management planning process involves a review of current aquatic weed management practices taking into account the changes to the management regime resulting from the development of Ross River Waterway Management System.

#### **4.8 Integrated Storm Water Management**

Storm water generally flows into the river through modified and/or constructed storm water drainage systems, increasing the potential for contaminants to enter the waterway as a result of reduced filtering and buffering. The risk varies, influenced by a range of factors including the pattern of land use, the design of the storm water system and the ecological sensitivity of the receiving water. Dumping of waste in the proximity of waterways can also increase the risk of contamination.

The range of contaminants that has the potential to enter the drainage system includes:

- Gross pollutants such as litter and sediment;
- Nutrients including both fertilizers and organic garden wastes;
- Pesticides and herbicides;

- Hydrocarbons and heavy metals from roadways; and
- Commercial/industrial chemicals and waste

While most built environments have been stabilised to prevent erosion, there is still potential for erosion from developing areas and construction works. Although erosion and sedimentation are natural processes, they can be accelerated by the removal of vegetation and ground cover, concentration of flows and runoff, and construction in high-risk areas. Although natural sediment flows from upstream of the dam have been reduced, increased flows of sediment from other sources are not necessarily of benefit. The chemical and physical characteristics of the sediment and patterns of deposition / scour will vary, and likely have different localised impacts on water quality.

Urban stormwater quality management is the responsibility of local government under the *Environmental Protection (Water) Policy*. Ross River is impacted by stormwater drainage systems from Townsville City Council. Council has a storm water management planning and implementation process. Development of an appropriate framework to enable coordinated storm water management activities has the potential to maintain and improve the water quality of Ross River.

As a long-term objective, development and implementation of a stormwater management strategy incorporating key water quality objectives would be an appropriate aim. Wider integration in the context of water sensitive urban design (total water cycle management) would also be highly desirable.

Strategies that will assist in improving storm water quality include:

- Assessment of the storm water drainage system to determine the major pollutant outflows, and development of a priority action plan to address significant impacts;
- Retrofitting of gross pollutant traps (GPTs) to existing storm water drains to capture a greater proportion of coarse sediment and litter loads and installation of GPTs to all new storm water drains;
- Where possible, development of constructed wetlands to slow the rate of storm water discharge and maximise capture of sediment, nutrient and chemical pollutant loads;
- Where possible, development of systems for retention and treatment / evaporation of 'first flush' flows;
- Improving community awareness of best horticulture and gardening practices to minimise nutrient, pesticide and herbicide runoff;
- Additional public education regarding illegal dumping activities and implications on downstream water quality; and
- Litter reduction programs.

#### **4.9 Ongoing and Future Activities**

Table 4-1 lists ongoing and potential future uses associated with the Ross River waterway identified during the preparation of the Management System. It includes an anticipated trend in activity for each use based on consultation and anecdotal sources.

Only current activities have been addressed in the management planning with any future activities subject to investigations by activity proponents and subsequent approval from the appropriate authority. Future activities have been taken into account when developing management arrangements and where necessary have been referred to in the context of approvals required and management arrangements.

Table 4-1 Ongoing and Potential Activities (Activities shaded grey are potential)

Use	Location (potential)	Current	Trend
Bicycle riding	All weirs	Yes	+
Bird watching and nature appreciation	All weirs	Yes	+
Carbon sequestration through riparian re-vegetation	Investigation required	Informal	+
Commercial eel fishing	All weirs	No	
Commercial guided fishing tours	All weirs	No	
Community re-vegetation	All weirs	Yes	+
Defence Force training	Black Weir	Yes	+/-
Emergency water supply	Black Weir	Yes	+/-
Guided kayak safaris	All weirs	No	
Public use and facilities associated with parks	All weirs	Yes	+
Recreational fishing	All weirs	Yes	+
Research and scientific investigations	All weirs	Yes	+
Rowing, kayaking, and canoeing	All weirs	Yes	+
Scuba diving training and/or excursions	All weirs	Yes	+/-
Sightseeing river cruises	Black Weir	No	
Vessel hire e.g. canoes and electric powered	All weirs	No	
Walking / jogging	All weirs	Yes	+
Water skiing	Black Weir	Yes	+/-
Weed control	All weirs	Yes	+

## 5. Management Objectives

### 5.1 Environmental Management

The environmental values of the waterway have not previously been described in detail, although it has been recognised in a general way by the Urban Storm Water Management Plans (USQMP) of Townsville City Council, and in other studies, that the river has intrinsic values. Elements of the Townsville USQMP associated with the environmental values of the river are listed in Table 5-1

Table 5-1 Implied values of the Ross River plan area

Reach	Site description	Uses and issues
Ross Dam to Black Weir	<ul style="list-style-type: none"> <li>Wildlife habitat corridor: Riparian Corridor - major drainage line</li> <li>Heritage Listing and Zoning: Currently unassigned</li> <li>Natural Habitat Quality: Transformed and/or Degraded Habitat</li> <li>Conservation value: High</li> <li>Waterfowl habitat (including rare species)</li> </ul>	<ul style="list-style-type: none"> <li>Nature &amp; water based recreation</li> <li>Commercial eel fishery</li> <li>Recreational Barramundi fishery</li> <li>Riparian vegetation infested with exotic grass</li> <li>Floating aquatic weeds require integrated approach for control</li> <li>Potential conflict exists between use for water skiing and sand extraction</li> <li>Urban catchment storm water management required to maintain water quality</li> <li>Fishing pressure</li> </ul>

Black Weir to Gleeson's Weir	<ul style="list-style-type: none"> <li>• Wildlife habitat corridor: Riparian Corridor - major drainage line</li> <li>• Heritage Listing and Zoning: Currently unassigned</li> <li>• Natural Habitat Quality: Transformed &amp;/or Degraded Habitat</li> <li>• Conservation value: High</li> <li>• Waterfowl habitat (incl. rare species)</li> </ul>	<ul style="list-style-type: none"> <li>• Urban catchment</li> <li>• Storm water management required to maintain or improve water quality</li> <li>• Riparian vegetation infested with exotic grass</li> <li>• Floating aquatic weeds</li> <li>• Maintenance of riparian zone buffer required</li> <li>• Previously cleared riparian areas now landscaped parkland</li> <li>• Encroaching urban areas require native re-vegetation to maintain habitat integrity</li> </ul>
Gleeson's Weir to Aplin's Weir	<ul style="list-style-type: none"> <li>• Wildlife habitat corridor: Riparian Corridors - major drainage line</li> <li>• Heritage Listing and Zoning: Currently unassigned</li> <li>• Natural Habitat Quality: Transformed &amp;/or degraded habitat</li> <li>• Conservation value: High</li> <li>• Feral freshwater crocodile population</li> <li>• Waterbird habitat</li> <li>• Fish habitat</li> </ul>	<ul style="list-style-type: none"> <li>• Local residents have developed managed areas of the riparian zone</li> <li>• Urbanisation of southern bank</li> <li>• Riparian vegetation heavily infested with exotic grass</li> <li>• Urban catchment</li> <li>• Storm water</li> <li>• Floating aquatic weeds</li> </ul>

In general terms management of the environmental values of Ross River are addressed through the management objectives and actions associated with individual management plans. Water quality management, however, is cross jurisdictional and needs separate mention.

## 5.2 Water Quality Management

The flow processes in Ross River have been impacted significantly as a consequence of the construction of Ross Dam, and Black, Gleeson's & Aplin's Weirs. The system has effectively been altered from a free flowing river to a sequence of narrow lakes. The natural flow of water and sediment into the river system, and the subsequent movement of sediment through the system has also been altered.

Activities associated with developed land adjacent to the river have the potential to impact river water quality. These activities need to be managed if water quality in Ross River is to be maintained or enhanced.

Issues to be considered for water quality management purposes include:

- Greater risk of contamination from pollutants such as oil and grease from roads, litter and other wastes from domestic, commercial, recreational and industrial activities which can enter the drainage system;
- Increased intensity and velocity of runoff due to the increased area of impermeable surfaces;
- Increased sediment load as a consequence of increased runoff velocity;

- Issues with absorbing and buffering 'first flush' changes in water chemistry because of increased intensity of runoff;
- Changes in the structure of riparian vegetation;
- Introduction of exotic flora and fauna; and
- Changes in the river system as a consequence of recreational activities (clearing of snags, increased wave action from water sports, etc.).

The *Environmental Protection (Water) Policy 2009* (EPP (Water)), along with its head of power the *Environmental Protection Act 1994*, is the most relevant legislative instrument outlining the requirements for maintaining water quality, identifying environmental values and developing water quality objectives.

The ANZECC *Australian Water Quality Guidelines for Fresh and Marine Waters* (AWQG) (2000) and the Queensland Water Quality Guidelines 2009 (QWQG) establish default water quality guidelines for setting water quality objectives (WQOs) for receiving waters with regard to the beneficial human uses and ecosystem characteristics of water bodies. The WQOs are set for each Environmental Value identified for each water body.

Environmental values (EVs) have been defined through the National Water Quality Management Strategy (NSWQMS) and are also embedded in the EPP (Water), AWQG and the QWQG. The EVs are; Ecosystem protection, Recreation (Primary, Secondary and Visual appreciation), Irrigation, Stock watering, Farm use, Aquaculture, Human consumption, Drinking, Industrial and Cultural & Spiritual.

During the preparation of the Black Ross (Townsville) Water Quality Improvement Plan (WQIP) EVs were identified for waterways within the Townsville WQIP area i.e. Crystal Creek to Cape Cleveland. The process for identifying the current condition of waterways and establishing draft EVs and draft WQOs for specific waterways and waters, as per the NSWQMS framework, is described in the Townsville WQIP supporting document titled *Environmental Values, Water Quality Objectives and Targets for the Black Ross Water Quality Improvement Plan* (Townsville Gunn, J., Manning, C. and McHarg 2009). The process included identifying human use environmental values from background studies, stakeholder consultation and three community workshops.

Given the different uses of the Ross River weir pools the EVs associated with each are slightly different. It was assumed in the preliminary Ross River Waterway Management System that the EVs for the water bodies behind Aplin's and Gleeson's Weirs would be defined in terms of ecosystem protection, recreation and aesthetics, while 'raw water for drinking supply' would be added as an extra EV for Black Weir. This was confirmed as a function of determining the EVs for the WQIP waterways. EVs for the Ross River (below the dam) are shown in Table 5.2. When determining water quality management objectives the water type needs to be defined. The Ross River between the Dam and Aplin's Weir can be classed as a lowland river, wetlands or lakes. The section below Aplin's Weir is classed as estuarine. Guideline water quality values for lowland rivers and estuaries from the Townsville WQIP (based on the Queensland Water Quality Guidelines and NSWQMS) are shown in Table 5-3.

The guidelines were used as the basis for determining the draft WQOs for Townsville WQIP waters including Ross River and its weir pools. The WQOs for Ross River are shown in Table 5-4.

Table 5-2 Environmental Values

Waterway	Irrigation	Farm supply	Human consumer	Primary recreation	Secondary recreation	Visual appreciation	Drinking water	Cultural / spiritual values	Aquatic ecosystems
<b>Freshwaters</b>									
Ross River (below Dam)	M	L	H	H	H	H		H	√
Ross River Weir Pools (All)	M		H	H	H	H		H	√
Ross River (Black Weir)	H		H	H	H	H	H	H	√
Ross R (Gleeson's Weir)	L		H	H	H	H		H	√
Ross River (Aplin's Weir)	L		H	H	H	H		H	√
Tributaries (Defence land)			L	L	L	L		H	HEV (parts)
University (Campus) Creek			L	L	L	M		H	HEV (parts)
Lavarack Ck with weirs			L	L	L	M		H	√
Ross Creek and tributaries			H	L	L	H		H	√
Pallarenda			H		H	H		H	√
<b>Estuarine Waters</b>									
Waterway	Irrigation	Farm supply	Human consumer	Primary recreation	Secondary recreation	Visual appreciation	Industrial use	Cultural / spiritual values	Aquatic ecosystems
Ross River sub basin			H	H		H	M	H	√

Source: Table 2.3 and Table 2.5 in *Environmental Values, Water Quality Objectives and Targets for the Black Ross Water Quality Improvement Plan* (Gunn, Manning, and McHarg 2009)

Table 5-3 Water Quality Guidelines

Water type	Physio-chemical indicator and guideline value													
	Amm N	Oxid N	Org N	Total N	FiltR P	Total P	Chl-a	DO (% sat)		Turb	Secchi	SS	pH	
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	Lower	Upper	NTU	m	mg/L	Lower	Upper
Mid-estuarine	10	10	260	300	8	25	4.0	85	105	8	1.0	20	7.0	8.4
Lowland streams	20	60	420	500	20	50	5.0	85	110	50	n/a	10	6.5	8.0
Freshwater lakes/reservoirs	10	10	330	350	5	10	5.0	90	110	1-20	nd	nd	6.5	8.0

Source: Table 3.2 (Gunn, Manning, and McHarg 2009).

Notes: These are the Water Quality Guidelines for the Central Coast Queensland region (Burnett River Basin to Black River Basin) for slightly-moderately disturbed aquatic ecosystems. Mid-estuarine water type includes tidal canals, constructed estuaries, marinas and boat harbours.

n/a is not applicable and nd is no data.

Amm N = ammonia nitrogen, Oxid N = oxidised nitrogen, Org N = organic nitrogen, Total N = total nitrogen, FiltR P = filterable reactive phosphorus, Total P = total phosphorus, Chl a = chlorophyll a, DO = dissolved oxygen (percent saturation), Turb = turbidity, Secchi = Secchi depth.

Table 5-4 Water Quality Objectives

Indicator	Freshwater			Estuarine	
	Upland	Lowland	Lakes	Mid estuary	Upper estuary
TSS (mg/L)	-	10	10	20	25
Ammonia N (µg/L)	10	20	10	10	30
Oxid – N (µg/L)	15	60	10	10	15
DIN – N (µg/L)	25	80	20	20	45
Organic N (µg/L)	225	420	330	260	400
Total N (µg/L)	250	500	350	300	450
FRP – P (µg/L)	15	20	5	8	10
Total P (µg/L)	30	50	10	25	40
Turbidity (NTU)	25	50	1-20	8	25
Chlorophyll a (µg/L)	na	5	5	4	10
Dissolved Oxygen (%)	90-110	85-110	90-110	85	70-105
pH	6.5-7.5	6.5-8.0	6.5	7.0	7.0-8.4
EC* (µS/cm)	375	375	375		

Source: Table 3.2 (Gunn, Manning, and McHarg 2009).

Notes: Values are for Slightly to Moderately Disturbed (SMD) waterways using QWQG figures for Central Coast (CC) (on the left) and Wet Tropics (WT) (on the right) i.e. CC/WT, unless figures are the same for both regions.

nd is no data available. Where there is no data available the Central Coast values are adopted for the whole of the Black Ross (Townsville) WQIP area.

Dissolved oxygen is % saturation. DIN is the sum of Ammonia N and Oxid – N (oxidised nitrogen i.e. NOx).

\* Conductivity values (EC) for freshwaters (from the QWQG Appendix G, p.103) for Central Coast North, based on the 75th percentile value, is 375 µS/cm for the Black Basin. The Ross Basin is in the Burdekin-Bowen region and the corresponding value is 271 µS/cm.

Water Quality Guideline values – Human use exception to the aquatic ecosystem WQI values:

Turbidity - Drinking water (aesthetics) guidelines for turbidity are more stringent for freshwater i.e. 5 NTU (Nephelometric turbidity unit).

### **5.3 Recreational Use Management**

All of the weirs in the area of the plan have recreational use value for the community. While Aplin's and Gleeson's Weirs are small in size (length) and relatively shallow they and their surrounding riverbank parklands are important to the local residents and there are sport and recreation activities that make use of the waterway. Due to the proximity of residential development, and the minimal capacity of the weirs, the nature of this use should be unpowered and limited in volume.

Black Weir is much longer, wider, and deeper and has less development in close proximity. As a result its recreational use potential is greater. The Black Weir is able to deal with multiple uses at the same time, to service many different types of use, and to enable the staging of organised activities and events. Due to its size it is able to accommodate a competition sized rowing course as well as a waterskiing training and competition course, and still have room for public recreational use for both powered and unpowered watercraft. The management of this recreational use has required the creations of "use zones", a permitting system, the identification of certain times when certain types of use are restricted, and the development of a boat ramp to provide access. To be effective, the management of recreational use requires collaboration among all user groups, and to ensure safety requires the respect of regulations and other users by all who use the weir.

## **6. Use Management Planning Consultation**

### **6.1 Introduction**

Consultation for the revised use management arrangements consisted of several meetings to ensure that all points of contention were understood and addressed. The main issues discussed are described in this section.

### **6.2 Black Weir**

Black Weir was the subject of most of the discussion due to the issues associated with recreational activities and the impacts of development in and adjacent to the weir pool.

#### **Initial Meeting**

The meeting was facilitated by Townsville City Council. Main discussion points included:

#### **Use and Management Objectives**

The general objective is to keep the river accessible to as many uses and users as possible. This includes continuation of current uses such as rowing and water skiing, while still enabling use by the public.

#### **Riverway**

The boat ramp at Pioneer Park is now closed and there will not be a ramp accessible by the public in the area. The old ramp still exists and is able to be accessed by user groups to support/enable event staging.

#### **Douglas Arterial Road**

The main issues associated with the bridge relate to safety and the use of motorised vessels in the vicinity of the bridge. There is a 6 knot speed limit in the vicinity of the bridge.

#### **Boat Access**

Boat access to Black Weir is via the boat ramp at Loam Island. During an aquatic event that requires the closure of the boat ramp gate to ensure safety of all users an Event Permit from

Maritime Safety Queensland (MSQ) is required. If the event is organised through TCC's Booking System (and follows all other MSQ guidelines), the event organiser does not need a permit. General boating and fishing vessels do not require a permit.

In order to ensure the safe use of the Black Weir by the public, waterski users are required to obtain a permit for their use through the Townsville City Council on-line public booking system. Current use management arrangements for public users, to ensure a balance of safety and access, are for a maximum of 4 boats being allowed to book onto Zone A, and a maximum of 6 boats being allowed to book onto Zone B. Bookings are able to be made up to a week in advance on the public website. Bookings are available for 1 hour periods between 9.00am - 6.00pm Sunday-Friday, and periods between 10.00am – 6.00pm on Saturday. Up to 3 one hour bookings may be made consecutively. Availability to the public may alter subject to aquatic event bookings.

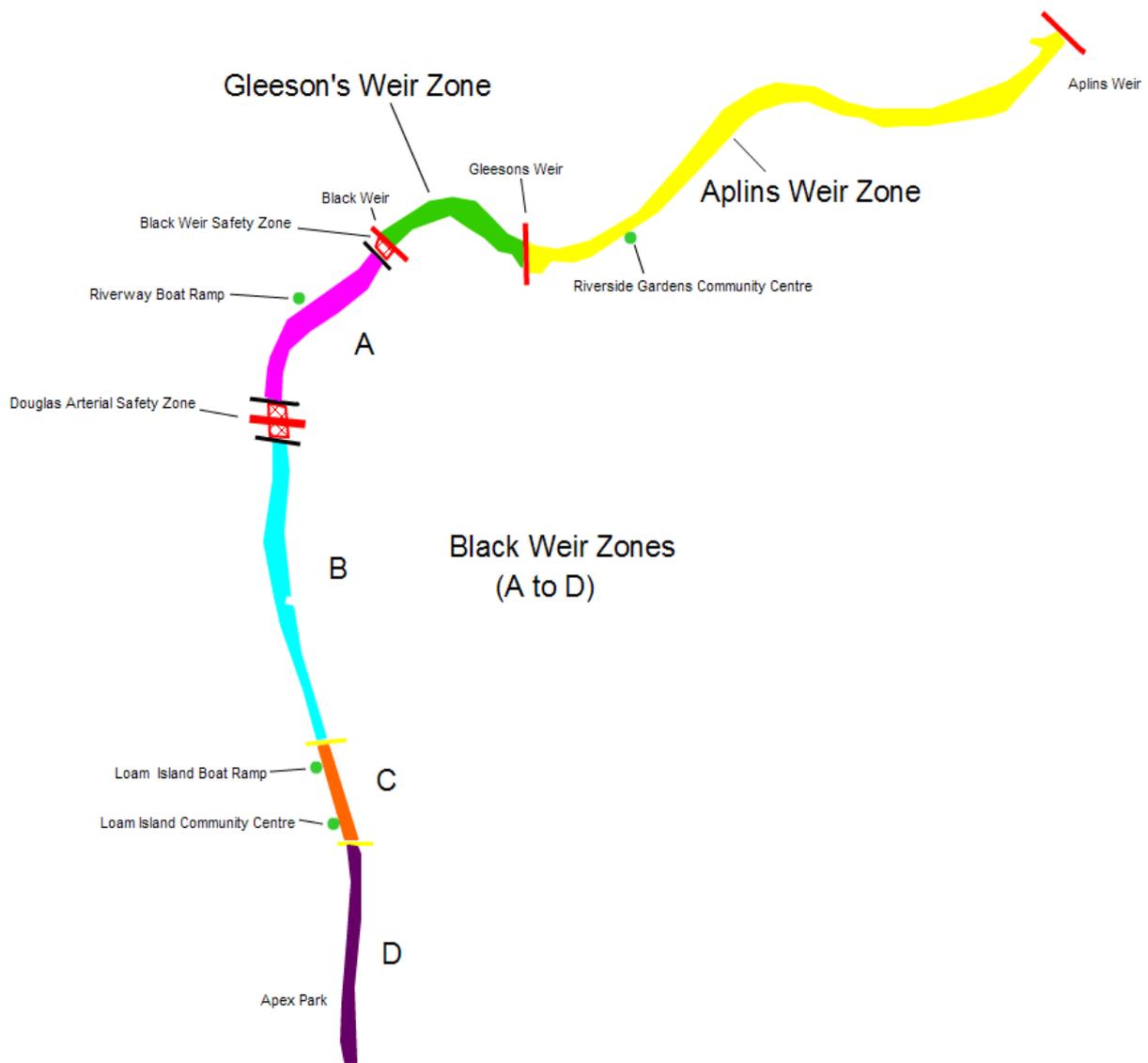


Figure 6-1 Current Use Zones for Black Weir

### **Current Situation**

The previous plan (2013) was generally suitable, but able to be improved to better accommodate the number of users and gradual increases in demand. The main issue is that the rowing course overlaps with two use zones, including Zone C which includes water access. Any use management arrangements that are developed need to accommodate both organised sport/recreation use while allowing continued use by the general public.

The current plan (2015) is again generally suitable to manage use for both organised activities and public use. With no changes to Zones within Black Weir, the main issue is providing fair access to all user groups and the public, noting that primary water access is at the Loam Island boat ramp (Zone C). Figure 6-1 (above) shows the current use zones for Black Weir.

### **Other Vessels and Fishing**

Unpowered boats and canoes in the upstream areas are consistent with waterway use in those areas i.e. quieter areas and residential stretches. Fishing from banks is another use, and as with fishing from boats is probably under utilised. Fishing from banks is dependent on weed density. When there is a flow in the stream lots of fishers use the weirs.

### **Residential Development**

Among the concerns that Townsville City Council has with regard to recreational use relates to potential noise complaints in the vicinity of Riverside Gardens and the Itara residential complex at Riverway. There is no intent to recommend limiting use or imposition of new regulations. Time based current use patterns for powered vessels should be adequate with the EPA Noise Policy sufficient for any dealing with potential complaints. Measured against background noise it is unlikely there will be a problem with 'nuisance' noise from these vessels.

### **Speed limits**

A 6 knot speed limit is currently in place for Zone C. The reason for this was to restrict powerboat use for safety reasons. Rowing craft and motorised vessels operating as support vessels to rowing craft underway are exempt from this limitation. The speed limit in Zone C is also in keeping with maintenance of the Loam Island area as an environmental reserve. The zone is not seen as compatible with activities such as waterskiing which require a designated area for its organised activities. However events may be staged in Zone C that exceed this speed limit with an MSQ Event Permit, which requires Townsville City Council concurrence.

### **Access and Viewing Opportunities**

The main issue for skiers with the Loam Island ramp is the distance to use zones and the lack of vantage points for spectators. It is a social activity and locations are needed for spectators. With rowing, the main action for spectators is at the finish line. Competitors are able to use a transit lane to move from the launching area to the start line and from the finish line to the launching area.

### **Water Course Markers**

The rowing course does not have permanent in-water markers for events as the cost is prohibitive. Markers on the riverbank suffice for distance measurement including marking start and finish lines. The setup of rowing course markers on a seasonal basis was not allowed within the current rowing course based on a risk assessment of the activity and site. Council have no objection however to course markers being installed on a seasonal basis and maintained by the club, should future applications be received and course markers met risk assessment guidelines at the site. Waterskiing also requires a marked course which is difficult to remove and install. Any new zone designated as an area for its organised activities should include semi-permanent course marking

buoys. The installation of waterski course markers was approved based on a risk assessment of the activity and site. Townsville City Council has no objections to waterskiing course markers being installed on a seasonal basis and maintained by the waterski club.

### **Swimming**

Swimming in Black Weir is common but usually numbers are small. Weeds tend to discourage access from many parts of the river. The most frequented areas include water within Zone D (access from Apex Park) and also water within Zone A (access from the banks alongside Riverway). Ropes on trees beside the river are a safety issue especially in relation to unseen snags and other objects. Generally swimming in the river is not encouraged. Any events that involve swimming that are held will need to show that they are adequately covered by insurance and that Council will not be held responsible for any incidents that occur.

### **Commercial Use**

Recreational sight-seeing and fishing tours are a potential commercial use and Townsville City Council has been approached in the past about the matter. Spatial separation arrangements would need to be investigated with the general area upstream of Loam Island considered to be the most suitable, with Loam Island to be used as the staging point. The concept of a canoe/kayak hire enterprise is supported by Townsville City Council.

### **Coordination of Recreational Use**

Activity coordination is currently the role of Townsville City Council with an informal Ross River Waterway Management Group existing consisting of user groups and Council with advice from relevant agencies.

### **Education and Awareness**

Education on speeds as well as boating and waterway use safety will be required regardless of the recreational use management arrangements decided upon.

### **Aquatic Weed Management**

The management of aquatic weeds has a major impact on the use within Black Weir. The level of control of aquatic weeds may not be the same as that desired by users, and throughout any particularly year there may be effects on usage because of aquatic weed. Preventative maintenance should continue to ensure aquatic weeds do not get out of control. See section 6.5 for more detail.

### **Other Environmental Considerations**

Other considerations include:

- As a result of control measures, erosion in the Pioneer Park area is not considered a major problem;
- Riparian zone management is needed, especially weeds such as Singapore Daisy and Chinese Apple;
- Monitoring program required to note any changes in condition and water quality;
- Collation of studies e.g. for Riverway, any by JCU, CSR Flora and Fauna study; and
- The access road to Allambie Lane sand extraction area to be rehabilitated after use.

### **Specific Issues**

Dept. of Defence is interested in the potential impacts of increased recreational activity and the likelihood of incursions on Defence land from recreational river users. Defence will monitor activities and see if any more action is required to secure their land. Additional signage and education may

be required. The main issue may come from the Townsville City Council side of the river as new residents look for walking and riding tracks. Defence training activities associated with the river may also increase and that needs to be noted and accommodated.

### **Follow Up**

A meeting with the Riverway Rowing Club and Townsville Water Ski Club (in 2013) was held as a follow up to the initial meeting.

In the 2015 review, discussions with Riverway Rowing Club and Townsville Water Ski Club indicated that while there are primary seasons for Rowing and Skiing, events and training are held throughout the whole year.

Information from these meetings included:

Rowing is predominantly a winter sport, as the endurance nature of the activity is not compatible with the tropical summer. Training during the summer takes place early in the morning before the heat becomes too intense, or later in the afternoon/evening. It is desirable to use the full course for training and events, which is two kilometres long.

Water skiing is more pronounced in summer with major competition events usually scheduled for that time. The sport has a major social/family component and is a spectator sport as a boat tows only one skier at a time. Participants waiting their turn generally wait at a staging area/s on the riverbanks. Boat launching access means all powerboats are required to launch from Loam Island. This will require low speed (6 knot current limit) traverse to the waterskiing zones with gear and equipment as required, unless there is some other form of access to the river closer to the waterskiing areas where vehicles can be parked and spectators and equipment unloaded.

Water Ski Club members are considered to be more responsible and knowledgeable about safety and social issues than the general boating public due to the rules and regulations, which are a condition of membership. Unsafe or inappropriate activities by the general public are often the cause of conflict and when people ignore booking arrangements or contravene safety regulations Townsville City Council Regulatory Officers can be contacted to deal with the situation.

As the current permit system is session based, boat launching and removal tends to be compressed into the very start and end of the time periods. This means that there will be a number of boats and trailers trying to manoeuvre in the vicinity of the boat ramp at Loam Island at the same time.

Timing of major events requires a long lead-time to allow for advertising and notification. Water Ski events affect rowing activities because of travel from the boat ramp to the event areas. Rowing events impact skiing as the rowing course runs through Zone C (and shared boat ramp). Therefore on days when rowing regattas or major waterski events are held, several use zones may not be available for use.

During rowing club activities (where either Zones B and C or Zones A, B and C are booked) a transit lane adjacent to the northern bank is utilised by rowing vessels. During regattas, access to Zone A (public use) and Zone D (Ski Club member use) will be restricted. Events restricting access to the river will be limited in number and confirmed by Council in the event booking period in preparation for the following year. During regular rowing training (where Zones B and C are booked) public ski boats (travelling to Zone A) and Ski Club members (travelling to Zone D) are required to use this transit lane and travel at a safe speed until in their booked zone.

Bookings both for regular use and events need to be planned carefully and well in advance. Communication between Council, relevant user groups and the public needs to be consistent and be planned to provide sufficient notice periods for all parties.

### **6.3 Aplin's and Gleeson's Weirs**

#### **General**

The areas (Figure 6-2) are the responsibility of Townsville City Council. Both of these weir pools also require use management arrangements to be formalised.

#### **Use Considerations**

The considerations regarding use include;

- a) The main access point for boats to Gleeson's Weir is via the park below the Black Weir.
- b) The Ross River Parkway is progressing according to plan with the substantial body of work now being carried out below Aplin's Weir to the Bowen Road Bridge. Bikeways and walking trails are being constructed at present. Little additional work has been done on park nodes. Community groups are also involved in re-vegetation of riparian area assisted by Environmental Management Services Natural Areas Team. There is a need for additional access points for fishing and launching of canoes, and this must be assessed and incorporated in future works planning.
- c) The fishing potential of the weir pools is probably under utilised given the number of fish present and the ongoing stocking program. There is good potential to expand recreational fishing. While the presence of aquatic plants impacts the fishing experience from the banks, good fishermen seem to be able to adapt and alter their methods and equipment to suit. The main issue is gaining access to the river to enjoy the fishing experience eg. access for canoes.
- d) Rowing club activities are centered around the boatshed in Aplin's Weir at Riverside Gardens. There is a need for another boat storage area and Cathedral School has expressed an interest in establishing a facility in the region near Aplin's Weir. The behavior of club members is managed by the club Codes of Conduct.
- e) Wherever possible, natural areas should be retained along the river rather than establishing more formal parks or re-engineering the banks. The main issue is access for fishing and launching of canoes. At present some people living near the river have their own hand trailers, which they use to get their vessels to the water. Apart from that there are limited access points for people wishing to be use the waterway i.e. parking and carrying a boat to the water is required.

#### **Speed Limits**

Motorised vessels (unless those supporting rowing craft with club training or event bookings) are not permitted within Aplin's Weir. The current gazetted 6 knot speed limit will remain unchanged even though rowing vessels and their support boats may exceed the limit. The speed limits within the weir pools are not intended to restrict use by rowing vessels or their support craft.

#### **Rowing**

Rowing is an established and encouraged use of the weir pools. The pontoon at Riverside Gardens is the property of the Townsville /James Cook University Rowing Club (TJCURC).

A second access point and boatshed may be required in the future as the limiting factor for the sport is the ability to get the rowing gear to the water. The development, and coordination of the

scheduling of activities with other rowing clubs and schools, will be a matter for the rowing community to pursue.

Exclusive use of the weir pools for regattas will be addressed in the same way as the Black Weir, where Council is notified of events in advance and the section in question is booked for use by the organisation staging the event. This operates in the same way as the booking system for parks. There is a need for signage to provide notice of the use of the river for events. There is no need to define zones in this section of the river.

### **Canoeing/Kayaking**

The Townsville Kayak Club currently launches from the Nathan Street Bridge where they have a storage area (a Council shed). The club has been operating successfully however the point of access to the water is prone to some aquatic weed.

### **Swimming**

Swimming in Gleeson's Weir is uncommon while swimming in Aplin's Weir is more common but only by small numbers. Similar to Black Weir, weeds tend to discourage access from many parts of the river. Ropes on trees beside the river are a safety issue especially in relation to unseen snags and other objects. Generally swimming in the river is not encouraged. Any events that involve swimming that are held will need to show that they are adequately covered by insurance and that Council will not be held responsible for any incidents that occur.

### **Triathlon and Other Events**

The Triathlon Club are also users of the river for events and they are aware of the booking/permit process. This also applies to other users of the weirs for organised events.

### **Ecotourism**

A Permit from Council for commercial use is required. This also involves use of Council land for commercial purposes as any operation will require land-based access. The general concept of eco-tourism is supported with any specific enterprises conditional on the appropriate permissions and requirements being met including:

- Any regulatory obligations i.e. licences and permits;
- Suitable access and staging areas being available;
- Commercial sustainability of the venture; and
- No adverse social, economic or environmental impacts.

### **Commercial Eel Fishing (when activated)**

A minor use covered by licensing conditions by DPI&F Practical limitations includes continued access to the waterway for this use. The use of a powered vessel is covered by the permit system as a recognised exempted use.

### **Aquatic Weed Management**

While not a use as such, the management of aquatic weeds has a major impact on the use within Aplin's Weir. The level of control of aquatic weeds may not be the same as that desired by users, and throughout any particularly year there may be effects on usage because of aquatic weed. If there were any increase in control measures then a contribution from users should be considered. See section 6.5 for more detail.

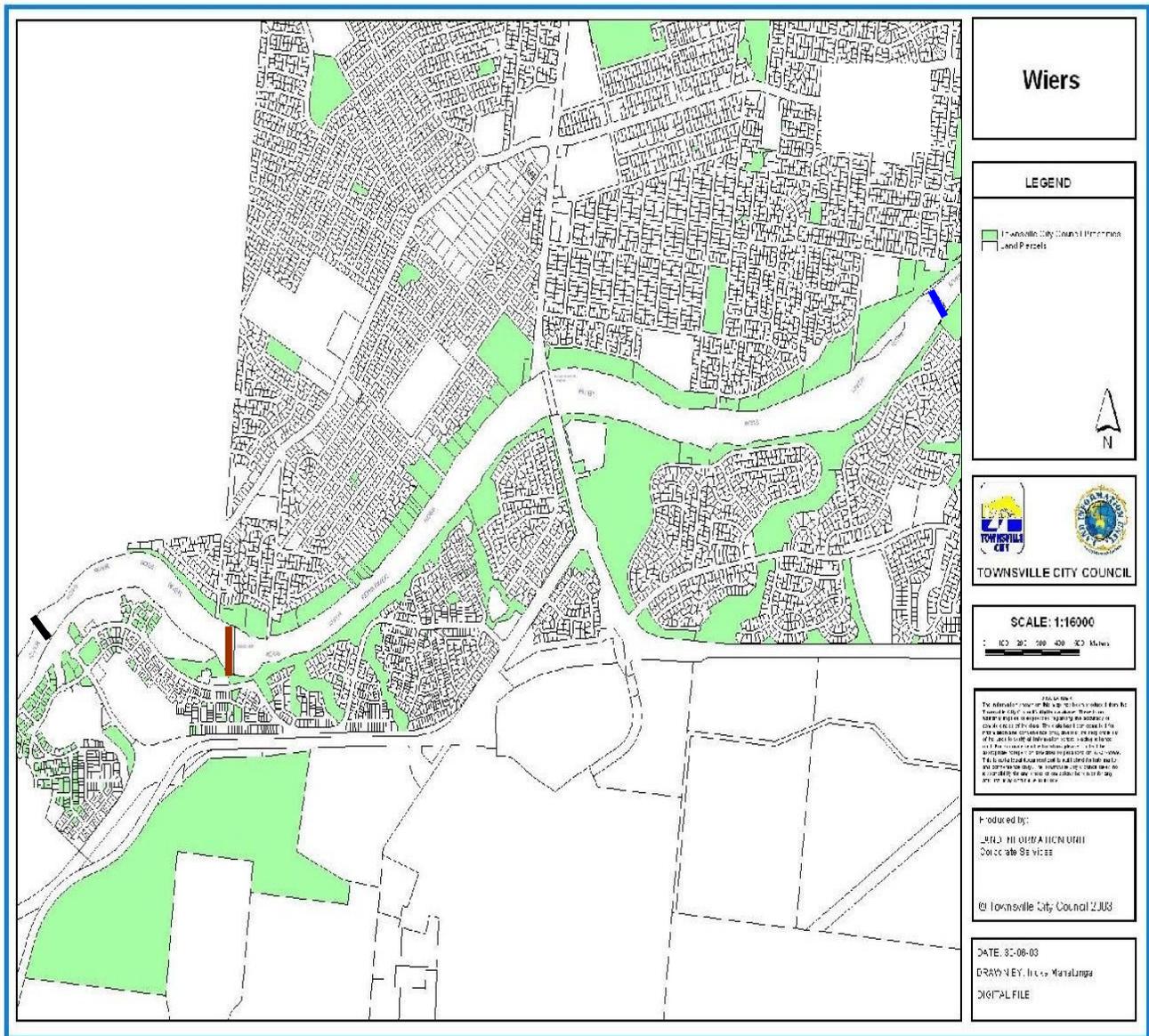


Figure 6-2 Aplin's and Gleeson's Weir Pools

### Aplin's and Gleeson Weirs Responsibilities

The current arrangements for the use of land based parks and reserves are described in Townsville City Council Local Laws. Council provides base level maintenance and any additional requirements above and beyond that level are the responsibility of the sporting clubs. This includes provision of amenities required for the particular activities e.g. goal posts. The intentions, if not provisions, of the Local Law may be applied to the weir pools behind Aplin's and Gleeson's Weirs.

The process used by Council to enable use of parks for events is a simple booking system administered by the Community Services Department. The applicant makes contact and advises of their request for use. The request is checked against the diary to ensure there are no previous bookings for the requested area. If there are no unresolvable issues and the request is approved a booking agreement is sent to the applicant with conditions of use. The same booking system is used for Aplin's and Gleeson's Weirs.

Operation of the booking system is straightforward however the derivation of the authority to grant and enforce exclusive use of the water bodies, or part thereof, is not as clear. While Aplin's and Gleeson's Weirs are the responsibility of Townsville City Council, and therefore management of the impounded water is by default the responsibility of Council, the 'ownership' of the water body is less apparent.

The land below the water body i.e. beds and banks, is State land as defined under the *Water Act 2000*. Approval is required from the DNR&M to disturb the bed or banks or to extract water from the river system.

Implementation of use management may require the drafting of new Local Law to deal specifically with the weir pools as they cannot be designated as 'Park' or 'Reserve' as there is no land to be assigned.

Regardless of the process used to manage the use of the weir pools, the public will need to be made aware of the arrangements, including permitted and restricted uses.

## **6.4 Riparian Zones**

### **Specific Riparian Zone Issues**

There is ongoing management of the riparian zone between Aplin's Weir and the Ross Dam. Management arrangements recognize the relatively homogeneous sections of the river. The main points are summarised below.

#### **Allambie Lane to Ross Dam**

Allambie Lane marks the point where houses have river frontage. Downstream of Allambie Lane, Riverway Drive runs parallel to the river.

A weed management strategy for the river banks exists. The re-vegetation strategy also identifies the river as an important area for re-vegetation although there are no major plans for re-vegetation works.

Pest management is concentrated primarily on Declared Plants and work is done along the river when possible. There is monitoring for Siam Weed and other potential pest invasions, as part of normal activities. Weed locations are recorded and translated onto maps as required.

Corveth's Waterhole is an area of focus for weed control in conjunction with community volunteers. There is significant weed infestation on Dept. of Defence land in the area. The Commonwealth is a major landowner fronting the river and needs to be included in a coordinated weed management program for the riparian areas in the relatively natural stretch below Ross Dam.

As the responsibility for maintenance of the river is a 'grey area' the most equitable solution would be for all relevant agencies and adjacent landowners to be involved in its maintenance, including riparian weed control measures. A condition assessment of the area has not been carried out and would be a practical first step in the management process, along with the formation of a riparian management-working group to include City Council, Dept. of Defence, Landcare, and DNR&M,.

### **Pioneer Park to Allambie Lane frontage**

The Riverway nodes at Pioneer Park and Loam Island are the focus of attention for this stretch of the river. A track from Apex Park to Loam Island exists and is maintained by Townsville City Council, as are the formal park areas.

Weed control from Pioneer Park to Loam Island is relatively easy due to steep banks (lower incidence of light) and less weed presence. A walking track closer to the river is 'planned' for the future. This will be separate to the current high bank bikeway. The entire section from Pioneer Park to Allambie Lane is considered by Council to be adequately managed given the current development in the area and accessibility.

The main management issues are in the vicinity of Kingfisher Lagoon with the area near the mouth of the lagoon requiring cleaning out due to the amount of sediment, which is impeding hydrological functioning of the lagoon.

The flatter areas in the vicinity of the lagoon are host to a variety of weeds including Chinese Apple, Rubber Vine and Para Grass (in the wetter sections). A Management Plan will be developed for the area around Kingfisher Lagoon in conjunction with Townsville City Council. Whilst fire may be a useful management tool in the management plan, a number of issues associated with its use in developed areas must be resolved before implementation. Previous experience in other parts of the City has shown that fire is one of the more effective methods for controlling Para Grass.

Upstream from Kingfisher Lagoon the riverbanks are steeper and there are no plans to do any formal park works in that area. A bridge across the lagoon mouth is part of a pathway circuit around both sides of the weir involving the Douglas Arterial Bridge and the Black Weir Bridge.

Riparian areas in the Riverside Gardens development are under the management of Townsville City Council and are generally maintained.

### **Riverside Gardens to Aplin's Weir frontage**

This stretch consists mostly of formal parks with a narrow band of remnant riparian zone vegetation. As with the previous section, it is maintained by Townsville City Council (Figure 6-4).

A section of the riparian zone downstream of Black Weir (Riverbend Sanctuary) is maintained by the Dry Tropics Biodiversity Group, a community group. The area requires minimal work.

An issue associated with Gleeson's Weir is the occurrence of fish kills associated with reduced oxygen concentrations as water temperatures rise, water levels reduce and organic matter decays in a relatively small body of water.

Endeavour Creek is probably the main area requiring attention if areas are being identified for additional action. Additionally, development in the university grounds has caused creek impacts in the section where the main Riverside Road approaches the Douglas Arterial Road.

### **Aplin's Weir to Bamford Lane frontage**

This section of the river includes the majority of community re-vegetation sites and 'natural' areas including; the Bush Garden and the island near Aplin's Weir. There is a mix of formal parks, bikeways and walking tracks and semi natural river banks with various degrees of accessibility.

Aplin's Weir Park to Rossiter Park is dominated by relatively low banks and semi-formal parkland. The banks become more pronounced from Nathan Street with the banks from Nathan Street to Alice Street drain having largely been re-vegetated with regular weed control carried out.

Community re-vegetation has also been undertaken in the section 100m upstream of Alice Street drain (Karang Court) where the banks are generally steeper. Better access for recreational fishing could be investigated. Weed control is carried out in these sections. Re-vegetation is planned in the section from Alice Street to Gleeson's Weir and currently some weed control is carried out in that section. There is a concentration of Guinea Grass in the area before Gleeson's Weir, which is difficult to maintain due to steepness of banks and accessibility for staff and equipment. Singapore Daisy is also an issue and may be spread by mowing.

## **General Matters**

### **Pest Management**

The Townsville City Council Pest Management Plan is species focused and does not usually address issues associated with the river unless it is a matter relating to declared plants such as Parkinsonia and Leuceana. The pest management team is currently looking at having some plants declared as local weeds.

### **Community Groups**

Issues raised concerning community involvement in re-vegetation related to the legal and insurance implications i.e. workplace health and safety issues. Council activities are covered through inductions and sign-ons while Landcare general insurance cover should be adequate for other purposes, as long as all the requirements are met. Individuals involved in non-organised activities are liable for their own actions are not covered by insurance.

The other issue area was associated with training for volunteers. This was not discussed in length as it was considered to be more of an organisational and partnership issue to be dealt with on a project by project basis rather than as a Ross River riparian management zone specific issue.

### **Native Grasslands**

While re-vegetation tends to focus on trees and shrubs the retention of native grasslands is important for birds.

## **6.5 Aquatic Weed Management**

The issue of aquatic weed management was raised during consultation as an issue affecting the river and recreation or as a matter to consider when planning riparian management and development. The main points associated with aquatic weed management not mentioned in previous sections appear below.

### **Weed Harvester Access**

Preventative management is used primarily for floating aquatic plants with the weed harvester required to control submerged aquatic plants. If weed harvesting were to be carried out it would be instigated around May if 'natural' flushing of the river is not adequate to remove the mass of aquatic plants from the system in the preceding summer (wet season). Water access for the weed harvester is one consideration, however the main issue is the removal of the aquatic weed from the river and the distance travelled by the harvester, or a support vessel, to areas where weed can be off loaded. At present the access and off loading points are:

- Loam Island (Black Weir access)- **Priority,**

- Arinya St (Black and Gleeson's Weir access and offloading) **-Priority ;**
- The park below Black Weir (off loading)- **Priority,**
- Victor Street (Aplin's Weir access); and
- Nathan Street bridge (off loading) - **Priority.**

Access and off-loading areas will be maintained in Council's park planning and development. In the case of the park below Black Weir, in the event that a retaining wall is built to bolster up the bank, then a cutting/ramp will have to be installed to enable continued access.

### **Weed Handling and Disposal**

Roping off areas to capture floating weed may be useful to retain weed in areas for harvesting purposes. Generally weed material dragged onto shore is not easy to handle for application to parks nearby, and the best option is to remove it from the site altogether. However, Council has found it is able to deal with and use it on site in the Gleeson Weir Park (downstream of Black Weir). The difference may be due to the time allowed for the material to dry in situ i.e. stockpile the material prior to use.

### **Aquatic Weed Control Costs**

Preventative maintenance is currently undertaken by Townsville Water on behalf of TCC Maintenance Services at an approximate cost of \$1,000 a day (two people, equipment and chemical). The operation is carried out on an as needed basis.

Preventative maintenance consists of spraying surface weeds near the banks from a boat to prevent the further expansion into the waterway. The frequency of spraying has to be balanced against the environmental impacts. Infrequent control can result in a substantial build-up with spraying creating impacts from the breakdown of dead plant material and de-oxygenation of the waterway. Greater volumes of herbicide are required for larger infestations.

Development of Key Performance Indicators (Trigger Criteria) to determine when to spray is required. At present the team has a 'rule of thumb' that says when weed has spread 3-4 metres from the banks it is time to spray.

The planning and budgeting associated with carrying out aquatic weed removal by the weed harvester should be thorough and organised by the necessary department stakeholders. Costs of work could range between \$30,000 and \$100,000 depending on the amount of river treated.

## **7. Management Plans and Actions**

### **7.1 General Comments**

Even though the management plans proposed have been divided into management components, there is considerable overlap between the contained management elements that require a coordinated approach. The first management category (Governance, Communication and Awareness) is crucial to the effective operation of the Ross River Waterway Management System (RRWMS) as it underpins all the following management actions.

### **7.2 Governance, Communication and Awareness**

#### **Management Objectives**

The main objective is:

To facilitate a coordinated and integrated approach to the management of the Ross River Waterway between Aplin's Weir and Ross Dam to ensure the environmental, cultural, and recreational values of the river and its tributaries are maintained for the benefit of all.

### **7.3 Condition Assessment**

#### **Management Objectives**

The main objective is:

To determine the physical condition of the plan area to:

- Provide a baseline for monitoring and evaluation;
- Assist with future planning for provision of recreational facilities;
- Identify areas requiring re-vegetation and restoration works;
- Provide background information for funding applications; and
- Assist with coordinated pest management activities.

### **7.4 Cultural Heritage**

#### **Management Objectives**

The main objective is:

To determine the capacity and desire of Traditional Owners and Traditional Owner groups to be involved in the assessment of cultural heritage values of the Ross River study area and to be involved in ongoing cultural and natural resource management of the waterway and adjacent riparian areas.

### **7.5 Management Objectives**

#### **General**

Section 5 provides general information on environmental values of the Ross River waterway and water quality management objectives. The *Creek to Coral* initiative is an appropriate forum to progress water quality management for the Ross River, and for other waterways in the Townsville coastal plain. As part of the process the following elements should be considered;

- Review of existing water quality monitoring data to identify gaps in datasets and the most appropriate means to address shortfalls;
- Coordination and data sharing between the various water quality monitoring programs undertaken in the catchment;
- Regular review and evolution of management and monitoring programs to best meet evolving environment, community and stakeholder needs;
- Identification of key point source inputs contributing to reductions in water quality and development of strategies to improve those inputs;
- Increased stakeholder awareness of the relationships between their activities and water quality (both positive and negative), and the actions they can take to maintain or improve water quality (eg adjacent landholders, recreational boaters, fishermen, etc);
- Improved information dissemination between key stakeholders, the public and monitoring groups to ensure effective coordination and integration of the various water quality management activities being undertaken, and make best use of available resources;
- Integration with riparian vegetation and aquatic ecosystem management activities;
- Integration with those pest management and eradication activities that are fundamentally linked with water quality;
- Setting of long-term acceptable water quality benchmarks; and
- User and stakeholder 'ownership' and responsibility for the riverine system.

## **7.6 Riparian Management**

### **Management Objectives**

The main objective is:

To encourage coordinated management of the riparian zone in order to maintain and enhance environmental values, and provide opportunities for community involvement in management of 'natural' areas.

## **7.7 Aquatic Weed Management**

### **Management Objectives**

The main objective is:

To ensure aquatic plants are managed to maintain the ecological and water quality values of the Ross River weir pools.

## **7.8 Stormwater Management**

### **Management Objectives**

The main objective is:

To encourage a coordinated approach to management of stormwater quality for the Ross River below Ross Dam.

## **7.9 Aplin's and Gleeson's Weirs**

### **Management Objectives**

The main objective is:

To formalise Townsville City Council's management of the use of Aplin's and Gleeson's Weirs

Additional management objectives may also be contained or implied in the management objectives and actions associated with other components of the Ross River Waterway Management System.

## **7.10 Black Weir**

### **Management Objectives**

The main objectives are:

- To protect and improve the water quality of the weir pool contained by Black Weir;
- To ensure coordinated management of the waterway in accordance with legislative requirements and community desires;
- To provide for appropriate access for recreational use of the weir pool
- To regulate activities and conduct to manage erosion; and
- To protect the safety of persons using the weir pool by ensuring appropriate standards of conduct are maintained.

Additional management objectives may also be contained or implied in the management objectives and actions associated with other components of the Ross River Waterway Management System.

### **Considerations**

The Riverway project has effectively transformed Loam Island to be the centre of water based recreation and sports with the construction of a multi-use community facility to house the Scouts and Guides, the Riverway Rowing Club and the Townsville Water Ski Club. The only public access boat ramp on Black Weir is located within the two kilometre rowing course.

Management to the recreational use zone of Black Weir revolves around:

- A booking system/calendar of events to provide for management of events.

- A booking system to provide for management of public use.
- Collaboration between an informal Black Weir Recreation Working Group to ensure the effective operation of recreational activities, and especially events, on Black Weir.

### Recreational Use Management Arrangements

The current management of use arrangements for Black Weir are described in Table 7-1, with the use zones arrangements illustrated in Figure 7-1.

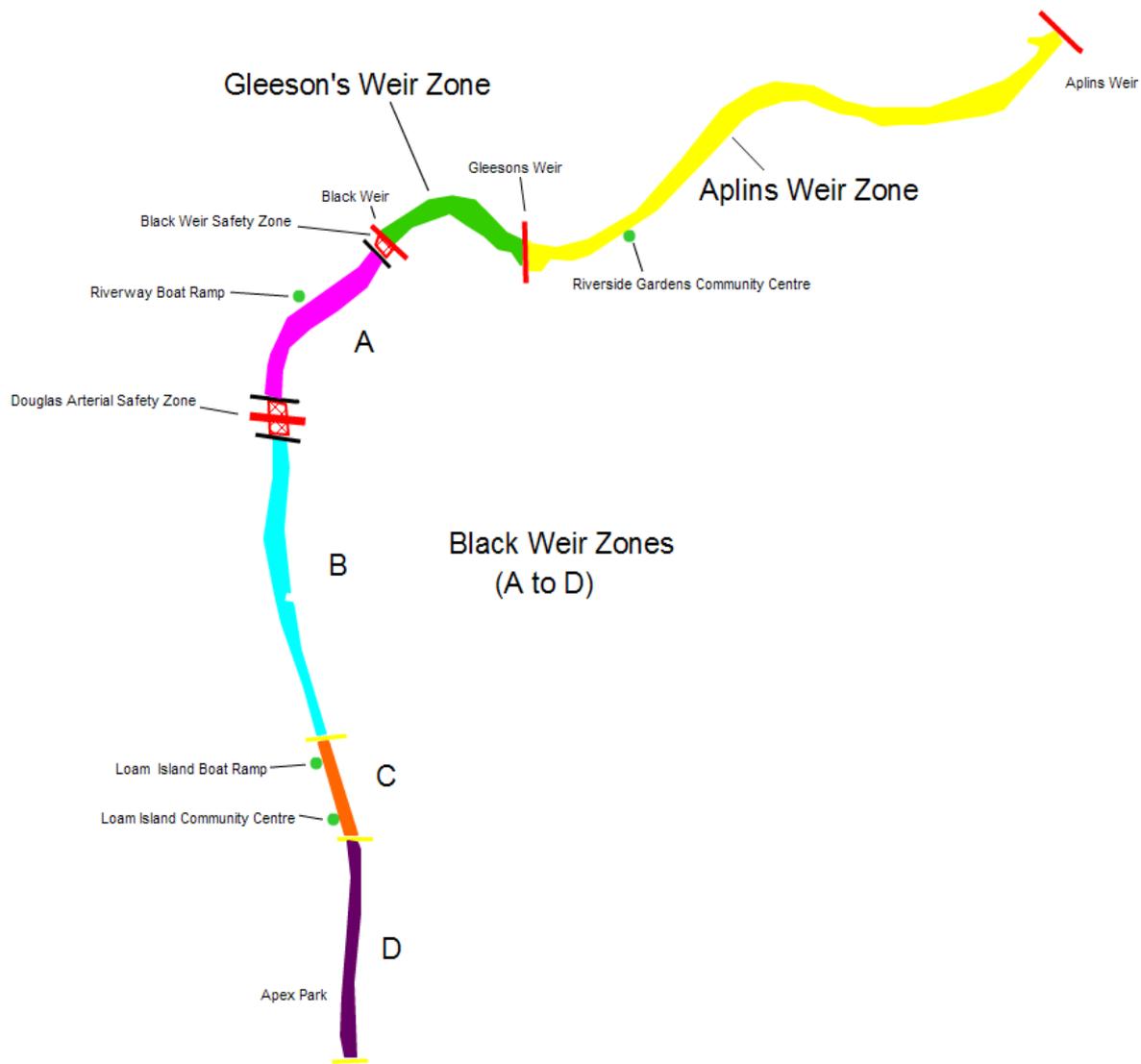
Table 7-1 Current Black Weir Recreational Use Zones

Zone	Recreational Use	Event Use
A*	<p>Permit system for general public use from 9am until 6pm Sun to Fri and 10am until 6pm Sat. A maximum of 6 boats at a time. Bookings are able to be made up to a week in advance. Bookings are available for 1 hour periods between 9.00 am 6.00 pm. Up to 3 one hour bookings may be made consecutively</p> <p>Reserved for use by Rowing Club affiliated vessels and support craft for training until 9am Sun to Fri, and until 10am Sat, and after 6pm every day, year round.</p> <p>smooth water (40 knot) speed zone.</p> <p>From upstream end of Weir Safety Zone to downstream end of Bridge Safety Zone.</p> <p>Public access will be restricted when events are being staged or training is occurring on Rowing course.</p>	<p>Booking system through TCC which excludes other uses on the booked day/s with exception of access by unpowered vessels not requiring Permits.</p> <p>Event Permits from MSQ and safety management plan required for events that involve speeds exceeding defined limit.</p> <p>As they will exceed the speed limit, Zone A is the preferred location for all jetski events (with MSQ permit).</p> <p>Use of old Riverway Pioneer Park boat ramp is allowed under a TCC approved safety management plan for event staging purposes but not for general public access.</p>

<p>B*</p>	<p>Permit system for general public use from 9am until 6pm Sun to Fri and 10am until 6pm Sat. A maximum of 6 boats at a time in Zones B. Bookings are able to be made up to a week in advance. Bookings are available for 1 hour periods between 9.00 am 6.00 pm. Up to 3 one hour bookings may be made consecutively</p> <p>Reserved for use by Rowing Club affiliated vessels and support craft for training until 9am Sun to Fri, and until 10am Sat, and after 6pm every day, year round.</p> <p>smooth water (40 knot) speed zone.</p> <p>From upstream end of Bridge Safety Zone to 150m downstream from Loam Island boat ramp.</p> <p>Public access will be restricted when events are being staged or training is occurring on Rowing course.</p>	<p>Booking system through TCC which exclude other uses on the booked day/s with exception of transit for downstream access by Permitted vessels (if made available by event organiser) and access by vessels not requiring Permits.</p> <p>Subject to a risk assessment and safety management plan, rowing course buoys able to be installed on a seasonal basis</p>
<p>C*</p>	<p>6 knot zone</p> <p>Not available for public use booking.</p> <p>From 150m downstream from Loam Island boat ramp to 150m upstream of end of 2 km rowing course.</p> <p>Public access will be restricted when events are being staged or training is occurring on Rowing course.</p>	<p>Booking system through TCC, which excludes other uses on the booked day/s with the exception of use of a transit lane for downstream access by vessels (if made available by event organiser) and access by vessels not requiring Permits.</p> <p>Subject to a risk assessment and safety management plan, rowing course buoys able to be installed on a seasonal basis</p>
<p>D*</p>	<p>Not available for public use booking. Reserved for use by Waterski Club affiliated vessels for training and competition.</p> <p>smooth water (40 knot) speed zone</p> <p>From 150m upstream of finish of 2 km rowing course to the upstream end of Apex Park.</p>	<p>Not available for booking. Reserved for use by Waterski Club affiliated vessels for training and competition. Other users excluded with exception of access via a transit lane (if made available by event organiser) for vessels not requiring Permits.</p> <p>Subject to a risk assessment and safety management plan, waterskiing course buoys able to be installed on a seasonal basis.</p>

2 km rowing course * (overlaps Zones B & C)	<p>Reserved for use by Rowing Club associated vessels and support craft for training until 9am Sun to Fri, and until 10am Sat, and after 6pm every day, year round.</p> <p>Subject to a risk assessment and safety management plan, rowing course buoys able to be installed on a seasonal basis.</p> <p>Distance markers on riverbank may be installed permanently.</p> <p>Seasonal (April to Sept) booking for rowing training is possible on weekdays from 4-6pm. When booked for this purpose, Zones A and B will be closed to public use.</p>	<p>Booking system through TCC which excludes other uses on the booked day/s with exception of use of a transit lane for downstream access by Permitted vessels (if made available by event organiser) and access by vessels not requiring Permits.</p> <p>Subject to a risk assessment and safety management plan, rowing course buoys able to be installed on a seasonal basis</p>
Weir Safety Zone	Safety zone – no use allowed within 100 metres	Safety zone – no use allowed within 100 metres
Bridge Safety Zone	Transit zone - 6 knot speed limit within 30 metres either side of bridge.	Transit zone - 6 knot speed limit within 30 metres either side of bridge.
Unsuitable area	Upstream from upstream end of Zone D is considered to be too shallow and narrow for permitted use	Upstream from Zone D is considered to be too shallow and narrow for event use

Figure 7-1 Current Black Weir Recreational Use Zones



**Management Actions**

Management actions for implementation of the revised Management of Recreational Use Plan for the Black Weir are described in Table 7-2.

Table 7-2 Revised Black Weir Recreational Use Management Actions

Action	Responsibility	Timing
Implement Statement of Principles as guiding framework for managing use	TCC & User Groups	Ongoing
Establish Local Law governing management of use of TCC controlled waterways	TCC	July 2015
Consult with Maritime Safety Qld (MSQ) and User Groups regarding revised/updated Recreational Use Plan	MSQ, TCC & User Groups	May – July 2015
Following approval from Townsville City (TCC) commence implementation of the 2015-2018 Recreational Use Plan	TCC & MSQ	August 2015

Advise user groups of approval and implementation of Management of Use Plan	TCC & User Groups	August 2015
Make appropriate changes to the TCC web based booking system, Loam Island boat ramp signage, signage for aquatic events that involve shared Zones if required, and promotional material to reflect revised Management of Recreational Use Plan for the Black Weir	TCC	July - September 2015

The content of the revised Management of Recreational Use Plan appears in Appendix E.

## 8. Evaluation and Enforcement

### 8.1 Evaluation

There are differing levels of monitoring and evaluation required for the Ross River Waterway Management System – Management of Use Plan based on;

- As yet undeveloped initiatives catalysed by the Management of Use Plan
- Implementation actions proposed in the Management of Use Plan

The level of monitoring and evaluation related to each of these points is discussed below;

#### **As yet undeveloped initiatives catalysed by the Management of Use Plan**

Measurement of the impact of the Management of Use Plan on as yet undeveloped initiatives will require recording and appraisal of the processes involved in moving from a “no action” situation to implementation of initiatives. This type of monitoring may need to be done on a retrospective basis if the emerging initiative is not obvious during its gestation period. The assessment of the effectiveness of the Management of Use Plan in enabling uses to develop being whether, and the number of new uses that develop.

#### **Implementation actions proposed in the Management of Use Plan**

This is the level at which monitoring and evaluation is required as the actions and objectives are defined. This includes receiving and responding to feedback from user groups and the public, particularly when shared events/bookings occur, monitoring the booking of public permits and commercial permits, and evaluating the regular and event booking systems.

### 8.2 Enforcement

The responsibility for enforcement of compliance to the intent and content of the management of Use Plan, the Code of Conduct, and the Local Law related to the weirs is varied. Individuals are responsible for compliance with speed regulations, use zones, and the permit process as well as for respect for safety, the environment, and other weir users. Townsville City Council Regulatory Officers can be contacted to deal with various issues relating to use in the weirs and will provide education, warnings, or forward information/evidence to MSQ or The Water Police where required. User groups are responsible for enforcing compliance by their members and at their activities and events. Maritime Safety Queensland is responsible for compliance with safety regulations. Townsville City Council is responsible for the enforcement of the Local Law. See Appendix G for the amendment to Subordinate Local Law No. 4.

### 8.3 Review

It is the intent that the Management of Recreational Use Plan be reviewed every three years to ensure it remains relevant to the evolving needs of the community. Accordingly, the next review should occur in 2018.

## **9. Future Investigation and Potential Development**

While outside of the scope of this plan, which is focused on the management of recreational use of the Ross River Weirs, there are several current operational arrangements and potential infrastructure improvements that should be investigated, their viability assessed, and changes to arrangements and/or implementation of infrastructure development considered in the future in order to enable ongoing improvement of access to and use of the Ross River Weirs by the community. These include, but are not limited to;

- The arrangements under which access to the Ross Dam for recreational use is provided and managed.
- The development of a second boat ramp on the Black Weir (preferably located to enable public access to Zone A when other zones are booked for training and/or events)
- The development of infrastructure in Apex Park to accommodate community groups, and enable access to and/or enhanced use of Zone D when training and/or events are being held in other zones.

## APPENDIX A – Ross River Waterway Management System - Strategic Management Areas

Management Area	Strategy/Strategic Intent
<b>Information</b>	
Governance, communication and awareness	Using the Framework from the Strategy: Continue consistent communication and dissemination of information with the Ross River Waterway Management Group; and Provide effective communication and dissemination of information to relevant internal and external stakeholders.
Condition assessment	Determine, in relevant detail, current condition and values of the land and vegetation, and any other relevant features, in the vicinity of the Ross River and tributaries, including erosion assessment and habitat values. This will provide baseline data for planning and ongoing monitoring and evaluation.
Cultural heritage	Determine the extent of Traditional Owner issues and interest in the plan area and the potential for integration of Traditional Owner use and management with non-indigenous management practices.
Management objectives	Determine the environmental values, desired environmental outcomes and water quality and other objectives for the study area, including potential arrangements for a coordinated water quality monitoring program. Links to the Creek to Coral initiative and emerging networks.
<b>Recreation</b>	
Aplin's and Gleeson's Weirs	Develop a management of recreational use plan for the weirs including desirability of access by powered boats and other recreational activities.
Recreational use management for Black Weir	Develop a management of use plan to accommodate a diversity of recreational activities, while ensuring that the activity does not compromise the environmental quality and experience of other users.
Recreational users Code/s of Conduct	Establish guiding principles for members of recreational clubs for use of the weir pools and associated facilities.
<b>Environment</b>	
Aquatic weed management	Review the weed management program for the Ross River weir pools with reference to recreational management arrangements, environmental values and new weed control methods.
Riparian restoration and management	Develop a coordinated approach to rehabilitation, re-vegetation and management of natural areas and re-vegetation sites including strategic prioritisation of rehabilitation and re-vegetation sites and definition of management regimes.
Riparian zone pest management	Development of a coordinated pest management plan for the riparian zone of the Ross River plan area including tributaries, natural areas and open space and parkland.
Stormwater quality management system	Facilitate a coordinated approach to stormwater quality management by Council. Potential outcomes include; recommendations for environmental management conditions associated with development and construction; water sensitive urban design as an integral part of new developments, and a combined program to retrofit stormwater drains with gross pollutant traps.
Erosion	Manage the amount of erosion in order to prolong the life of constructed amenities and control structures and minimise the impact on the environment.

## APPENDIX B - Open Space for Sport & Recreation Guidelines

"Open Space for Recreation and Sport: Planning Principles" was developed in 1998 as a guide for local government planner preparing planning schemes, or components of planning schemes, including strategic plans and development control plans.

This document identifies State Government interest in recreation and sport management, and ensuring these activities are identified, protected and managed. Planning schemes must integrate state and regional interests.

Planning Policies within the document include:

- Recreational Setting Diversity
- Natural Landscape Features
- Sustainability of Recreation
- Undeveloped Open Space
- Recreation and Sport in Rural Areas
- Open Space Fragmentation
- Cross Boundary Strategic Planning
- Regionally Significant Open Space
- Regional Recreation and Sport
- Open Space Standards
- Charging for Public Parks and Infrastructure and Priority Infrastructure Plans
- Multiple Uses of Open Space
- Redevelopment/ Recycling of Land for Recreation and Sport
- Ecotourism and Outdoor Recreation
- Compatible Recreation Activities
- Recreation and Adjacent Land Uses
- Facility Location
- Co-Location of Facilities
- Non-Motorised Recreation Trail Networks
- Connectivity of Recreation Areas
- Waterways and Riparian Corridors.

The *Planning Principles and Implementation Notes, 2003* highlights a number of important considerations for the ongoing management of the Ross River as an important recreational, sport and open space resource.

1. Allowing for recreational setting diversity within an area to provide the widest possible options for recreational activity by ensuring all landscape types are incorporated in the public open space network. By using the Recreation Opportunity Spectrum (ROS) for each site along the river, a continuum of opportunity classes can help managers to identify the range of recreation opportunities that visitors to the recreational site can participate in. Recreation settings, hence, are the physical, social and managerial aspects that define a particular open space, therefore, recreational settings cannot be static due to the modification that occurs over time of the determining factors and values. This ensures that the settings are sensitive to the change over time to the diversity and values of the community, however, they are resistant to short term trends.
2. Open space can be multi-purpose eg. natural environment and recreational activities,

through ensuring that the activities are compatible and appropriately managed. This aims to avoid negative impacts on the affected environment, ensuring the receiving environment has sufficient capacity to sustain natural process and that the activity does not impact on the natural attributes and diversity of the environment.

3. The need for cross boundary management. Each Council currently has individual sport and recreation management plans. Improved coordination is required to ensure; the continuity of outdoor recreational networks; improved user access through compatible policies and practices and protection of the resource from inappropriate and incompatible land uses in adjoining local government areas, and finally, to ensure that recreational management issues with cross local government boundaries are dealt with in a coordinated and complementary way.
4. Adoption of the River and environs within the Planning Scheme as open space rather than a function of adjacent development.
5. Consideration of Regionally Significant Open Space, land which is regionally significant for any open space function. Local governments should identify, protect and manage land of strategic importance for regional open space. The land identified should be accompanied by a statement of site significance to enable decisions to be made regarding a range of compatible land uses and appropriate development (if any) adjacent or within particular regional open space areas.

To ensure that ad-hoc planning and management of the recreational sites along the Ross River does not occur, it is recommended that the Recreational Opportunity Spectrum (ROS) be used as a framework for planning and managing the outdoor recreational activities and resources. The main purpose of the ROS is to ensure that a diverse range of experiences can be had through the recreational opportunities by allocating a variety of settings, which are biophysical, social and managerial (Clark & Stankey, 1979; Stankey & Wood, 1982; QLD Dept of Sport and Recreation 2001).

Recreation Settings are a combination of the following factors:

Biophysical Attributes:

- Terrain;
- Type and access to and within:
- Number and type of built structures present;
- Plant community;
- Animal community;
- Smells caused by natural features (eg flowering plants, rain, drying algae after floods etc)
- Sounds caused by natural features (eg water falls, surf, bird song, wind); and
- Area of available landscape/seascape.

Social Attributes

- Total number of people present;
- Activities of the people present;
- Sounds caused by machinery and the activities of people;
- Smells caused by the machinery and the activities of people; and
- Number of people present in a social group and their behaviour.

### Managerial Attributes

- Ownership and management arrangements for the site;
- Set of regulations/ rules/bylaws operating at a site;
- Landscaping and facility design and standards;
- Frequency of interaction with onsite enforcement, educational management, and maintenance staff; and
- Number and obtrusiveness of signs.

For this system to work a comprehensive recreational planning and management study must be completed which comprises of a site-by-site analysis using either the ROS or a similar system (landscape Classification System (LCS) devised by Batt and Warin.

## **APPENDIX C – Traditional Owner Contact Details**

### **Traditional Owner Groups**

There are two Traditional Owner groups that need to be consulted with respect to the Ross River. They are the Bindal and the Wulgurukaba.

#### **Bindal**

There are 5 Bindal family groups: Ross, Smallwood, Hegarty, Lymburner and Stanley. The family groups have a list of nominated spokespersons that are required to be consulted for Cultural Heritage and development projects.

Note: There are 2 Hegarty family contacts that represent two factions of the same family group.

#### **Wulgurukaba**

The designated contact point is the Wulgurukaba Aboriginal Corporation (WAC).

## APPENDIX D - Consultation Summary Information

The 2015 revised version of the Ross River Management System – Management of Recreational Use Plan involved consultation with key stakeholders and user groups including;

Organisation	Contact
Townsville City Council	Rob Hunt – Water Services Gavin Lyons – Community and Environment Andrew Hannay – Integrated Sustainability Services Don Gordon – Community Services Ricky Bligh – Infrastructure Planning Laura Vidmar - Community Recreation and Sport Jonathon Orman – Community Recreation and Sport Emma Featonby – Venues Officer Ken Armitage – Maintenance Services Tony Bligh – Legal Services Quentin Owen – Local Laws Unit Eulonda Bolger – Environmental Health
Townsville Waterski Club	Scott Keevers
Riverway Rowing Club	Mark Budd, Wayne Roy, Corby Green
Australian Boating College NQ and Aquadrenalin Watersports	Jason Robinson
Maritime Safety Queensland	Max Haste
NQ Personal Watercraft Club	Allan Pike
Townsville and JCU Rowing Club	Chloe Schauble, Graham Ward
Townsville Dragon Boat Club	Libby Timmins, Beatrix McLean
Townsville Kayak Club	Hans Pruess, Kai Simmons

## **APPENDIX E – Revised Management of Recreational Use**

### **A. Black Weir**

Review discussions were held between May-June 2015 with all relevant internal and external stakeholders. The final version of the 2015-2018 Management of Recreational Use Plan will be submitted to TCC for approval.

The revised plan for the management of recreational use is based on a Statement of Principles (Appendix F), use management systems/processes, a use zone structure, and other management actions as follows:

- A web based permit booking system for management of general public recreational use on Black Weir. To ensure a balance of safety and access, are for a maximum of 4 boats at a time in Zone A and 6 boats at a time in Zone B. Bookings are able to be made up to a week in advance. Bookings are available for 1 hour periods between 9.00am and 6.00pm Sunday to Friday and 10.00am to 6.00pm Saturday. Up to 3 one hour bookings may be made consecutively;
- A calendar of events to provide scheduling and management of organised activities on Black Weir;
- A Black Weir Recreation Working Group involving user groups and TCC to ensure the collaborative scheduling and management of organised activities on Black Weir, and to provide a forum for Maritime Safety Queensland to communicate with regarding use related safety issues. This is to function as an 'email group' that can openly discuss items with Council and other user groups;
- Use of the TCC booking system for events;
- Use of the TCC Commercial Permit system for the management of commercial use;
- Smooth water (40 knot) speed use in Zone D, from 150m upstream of the Loam Island Recreation Centre to the upstream end of Apex Park, for exclusive use only for organised waterskiing activity and installation of course markers;
- Exclusive use of the Black Weir by Rowing Club affiliated vessels and support craft for training until 9.00am Sunday to Friday, and until 10.00am on Saturday, and after 6.00pm every day, year round;
- Unpowered vessels and motorised fishing craft are able to access the river at any time without a permit;
- The intent of Townsville City Council when allocating space for event bookings, is that the safest and most suitable space be used for the nature of the activity and event involved;
- Recognition that although rowing vessels and their support craft may exceed 6 knots, and therefore the speed limit in 6 knot zones, the limit is intended to control the speed of the public's permitted powered vessels that are being used for waterskiing for safety reasons, and not to restrict use by rowing vessels or their support craft;

- The old Riverway – Pioneer Park boat ramp is not able to be used by the general public, but is able to be used under supervised conditions (eg under the control of a TCC approved Safety Management Plan) to enable/support the staging of events; and
- The zones and recreational use of Black Weir is described in Table A and illustrated in Figure A. These have not changed in the review.

Figure A: Recreational Use Zones

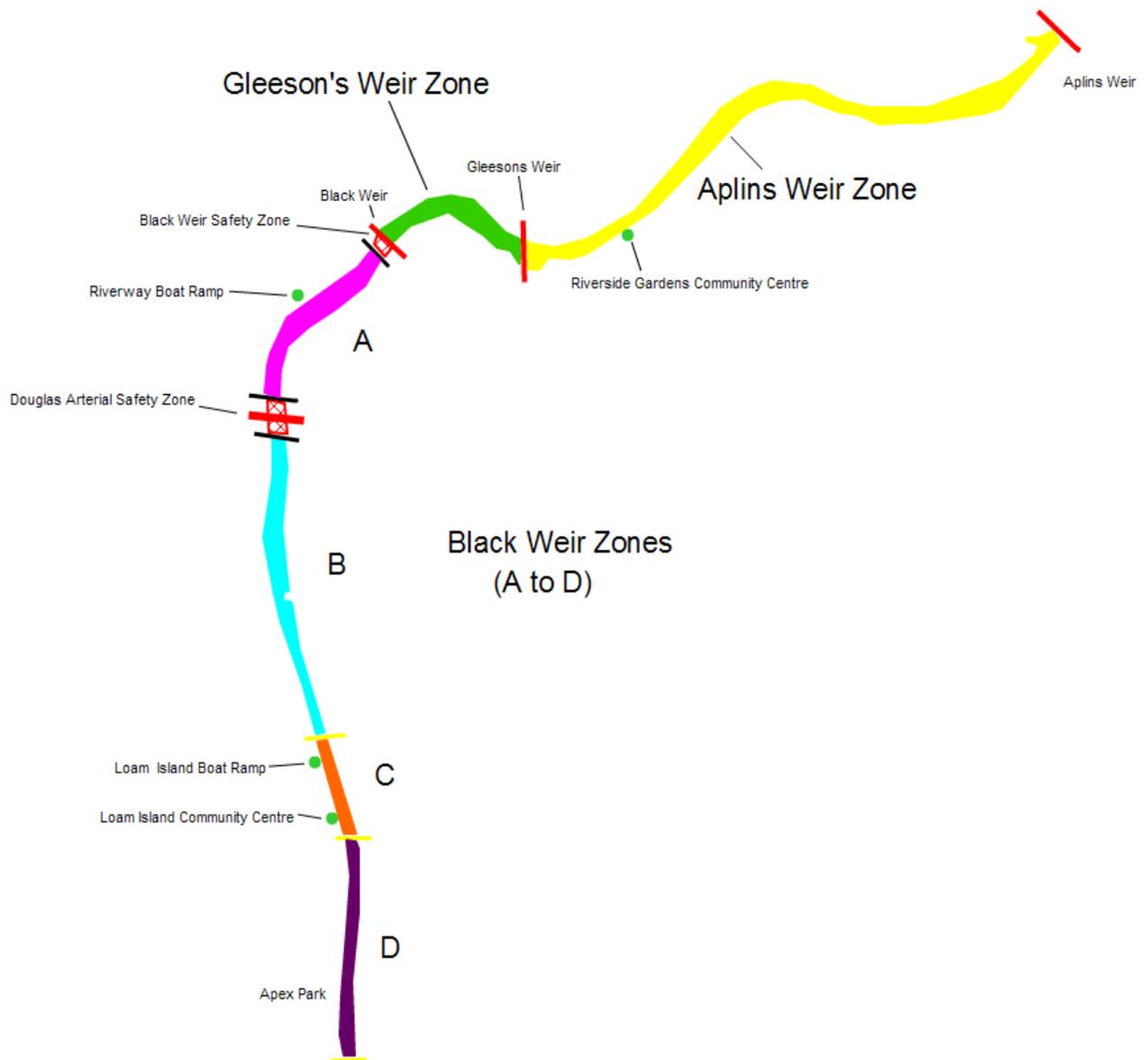


Table A: Revised Management of Recreational Use Zones – Black Weir

Zone	Recreational Use	Event Use
<p>A*</p>	<p>Permit system for general public use from 9.00am until 6.00pm (Sun-Fri) and 10.00am until 6.00pm (Sat). A maximum of 4 boats at a time. Bookings are able to be made up to a week in advance. Bookings are available for 1 hour periods. Up to 3 one hour bookings may be made consecutively.</p> <p>Reserved for use by Rowing Club affiliated vessels and support craft for training until 9.00am (Sun-Fri), until 10.00am (Sat), and after 6.00pm every day, year round.</p> <p>Smooth water (40 knot) speed zone.</p> <p>From upstream end of Weir Safety Zone to downstream end of Bridge Safety Zone.</p> <p>Public access will be restricted when events are being staged or training is occurring on rowing course.</p>	<p>Booking system through TCC which excludes other users on the booked day/s with exception of access by unpowered vessels not requiring permits.</p> <p>Event Permits from MSQ and safety management plan required for events that involve speeds exceeding defined limit.</p> <p>As they will exceed the speed limit, Zone A is the preferred location for all jet ski events (with MSQ permit).</p> <p>Use of the old Riverway Pioneer Park boat ramp is allowed under a TCC approved safety management plan for event staging purposes but not for general public access.</p>
<p>B*</p>	<p>Permit system for general public use from 9.00am until 6.00pm (Sun-Fri) and 10.00am until 6.00pm (Sat). A maximum of 6 boats at a time in Zone B. Bookings are able to be made up to a week in advance. Bookings are available for 1 hour periods. Up to 3 one hour bookings may be made consecutively.</p> <p>Reserved for use by Rowing Club affiliated vessels and support craft for training between 4.00pm and 6.00pm (Mon-Fri), until 9.00am (Sun-Fri), until 10.00am (Sat), and after 6.00pm every day.</p> <p>Smooth water (40 knot) speed zone.</p> <p>From upstream end of Bridge Safety Zone to 150m downstream from Loam Island boat ramp.</p> <p>Public access will be restricted when events are being staged or training is occurring on rowing course.</p>	<p>Booking system through TCC which excludes other users on the booked day/s with exception of use of a transit lane (if made available by Council and event organiser) for downstream access by permitted vessels and access by vessels not requiring permits.</p> <p>Aquatic events that will require exclusive use of this zone, while also not providing a transit lane to other zones will be limited in number.</p> <p>Rowing events require the use of the 2km rowing course which overlaps Zones B and C</p>

C*	<p>6 knot zone</p> <p>Not available for public use booking.</p> <p>Reserved for use by Rowing Club affiliated vessels and support craft for training between 4.00pm and 6.00pm (Mon-Fri), until 9.00am (Sun-Fri), until 10.00am (Sat), and after 6.00pm every day.</p> <p>From 150m downstream from Loam Island boat ramp to 150m upstream of end of 2 km rowing course.</p> <p>Public access will be restricted when events are being staged or training is occurring on Rowing course.</p>	<p>Booking system through TCC, which excludes other users on the booked day/s with exception of use of a transit lane (if made available by Council and event organiser) for downstream and upstream access by permitted vessels and access by vessels not requiring a permit.</p> <p>Aquatic events that will require exclusive use of this zone, while also not providing a transit lane to other zones will be limited in number. Access to the water via the Loam Island Boat Ramp will also only be restricted for a limited number of events.</p> <p>Rowing events require the use of the 2km rowing course which overlaps Zones B and C</p>
D*	<p>Not available for public use booking.</p> <p>Reserved for use by Waterski Club affiliated vessels for training and competition.</p> <p>Smooth water (40 knot) speed zone</p> <p>From 150m upstream of finish of 2 km rowing course to the upstream end of Apex Park.</p>	<p>Not available for booking. Reserved for use by Waterski Club affiliated vessels for training and competition. Other users excluded with exception of access via a transit lane for vessels not requiring permits (if made available by Council and event organiser).</p> <p>Waterski course buoys able to be installed on a seasonal basis.</p>
Weir Safety Zone	Safety zone – no use allowed within 100 metres	Safety zone – no use allowed within 100 metres
Bridge Safety Zone	Transit zone – 6 knot speed limit within 30 metres either side of bridge.	Transit zone – 6 knot speed limit within 30 metres either side of bridge.
Unsuitable area	Upstream from upstream end of Zone D is considered to be too shallow and narrow for permitted use	Upstream from Zone D is considered to be too shallow and narrow for event use

\*Unpowered vessels and motorised fishing craft are able to access the river at any time without a permit, with the exception of areas booked and in use for events where such access may cause safety issues.

\*Although rowing vessels and their support craft may exceed 6 knots, and thus the speed limit in 6 knot zones, the limit is intended to control the speed of the public's permitted powered vessels that

are being used for waterskiing for safety reasons, and not to restrict use by rowing vessels or their support craft.

\*The release of water from the Ross Dam due to accumulated runoff and/or rain may occur seasonally and result in the closure of all areas of Black Weir to all use. Should that occur, access will not be allowed to resume until a safety inspection of the weir occurs and it is declared safe for use.

\*As per maritime regulations, the use of jet skis on the Ross River is only allowed when towing a water-skier, as a safety/support vessel, or as part of an MSQ permitted event.

## **B. Gleeson's and Aplin's Weirs**

The current arrangements for managing the use of parks will be applied to the management of the use of Gleeson's and Aplin's Weirs. The process used is a booking system administered by the Community Services Department. The applicant makes contact and requests their use. The request is checked to ensure there are no other bookings for the area. If there are no unresolvable issues the request is approved and a booking agreement is sent to the applicant with the conditions of use.

### **Speed Limit**

The current gazetted 6 knot speed limit will remain as it is not considered necessary to alter it. Although rowing vessels and their support craft may exceed 6 knots, and thus the speed limit in 6 knot zones, the limit is intended to control the speed of the public's permitted powered vessels that are being used for waterskiing for safety reasons, and not to restrict use by rowing vessels or their support craft.

### **Rowing**

Rowing is an established and encouraged use in these weir pools. The pontoon at the Riverside Gardens Community Centre is the property of the Townsville & James Cook University Rowing Club. Use for regattas will be addressed by use of the booking system, where Council is notified of events in advance and the weir is booked for use by the organisation staging the event. There is no need to define zones in this section of the river. Townsville City Council has no objections to start / finish and distance buoys and riverbank markers being installed on a permanent basis and maintained by the rowing club in Aplin's Weir.

### **Other Events**

Other community groups that occasionally make use of these weirs will be managed by the booking process.

## **C. Other Uses and Users**

### **Un-Powered Watercraft**

It is not anticipated that existing public access to the river for canoeing and other activities using un-powered vessels will be affected with the exception of the use of the areas of the zones being used during booked events. Adequate communication will be required to ensure the public is aware of activities being staged.

### **Defence Force activities**

Will be managed through use of the booking and public notification processes to ensure any potential issues are addressed.

## **Commercial Use**

A Commercial Permit from Council is required to use the river for a commercial purpose. This is the same process that applies to use of Council land for commercial purposes as any operation will require land-based access.

The general concept of commercial use is supported with any specific enterprises being permitted conditional on the appropriate permissions and requirements being met including:

- Any regulatory obligations i.e. licences and permits;
- Suitable access and staging areas being available;
- Commercial sustainability of the venture; and
- No adverse social, economic or environmental impacts.

Future ecotourism or other commercial enterprises will need the approval of Townsville City Council. Such use will be subject to the Commercial Permit process.

## **APPENDIX F – Statement of Principles – Use of Black Weir**

### **MANAGEMENT OF BLACK WEIR IMPOUNDMENT** Statement of Principles

This document records the principles under which the council will regulate use of the water area upstream of the Black Weir (*The Black Weir Impoundment*).

It will guide the creation of the Ross River Waterway Management Plan which further details the conditions of use, and responsibilities of users, and relationship with the maritime safety regulations.

#### **Statement of Principle**

The Townsville City Council will maximise community use of the Black Weir Impoundment and associated community assets to the greatest extent possible while maintaining an acceptable level of safety for all users and minimising the likelihood of environmental harm.

#### **Relevant Considerations**

- a) The Black Weir impoundment is a community space and should be available for community use.
- b) There is increasing competition for space and time on the Black Weir impoundment from organised sporting groups and recreational users.
- c) The competition for space and time on the Black Weir Impoundment obliges the council to regulate use of the area.
- d) Organised sport contributes to the growth and cohesiveness of a community.
- e) Organised sporting uses are subject to a level of control by the organising bodies, which results in those uses being conducted at lower cost and risk to the community and the environment.
- f) The Black Weir Impoundment is the only location in Townsville suitable for some sporting uses.
- g) There is significant investment in community infrastructure associated with the use of the Black Weir Impoundment, including picnic and swimming areas, playgrounds, clubhouses and equipment shelters, and regulation of use of the Black Weir Impoundment should seek to both protect and maximise the return upon that investment.

#### **Prioritisation of Use**

When regulating the use of the Black Weir Impoundment, the Townsville City Council will allocate space and time on the Impoundment in the following order of priority:

1. Organised Sporting Competitions
2. Training for Organised Sporting Competitions
3. Recreational uses.

Note: Townsville City Council aims to allow a fair amount of competition, training and recreational use on the river, therefore the priority order can change depending on the current amount and needs of each activity type.

This prioritisation will be achieved by:

1. Identifying the portions of the Black Weir Impoundment (the competition training areas), that are necessary or highly desirable for the conduct of organised sporting competitions, and giving priority (in both space and time) to the conduct of organised sporting competitions upon those portions of the Impoundment.

2. Identifying the portions of the Black Weir Impoundment (the training areas), that are desirable for the conduct of training for organised sporting competitions and the times at which that training is generally conducted, and then giving reasonable priority (in both space and time) to the conduct of training for organised sporting competitions upon those portions of the Impoundment. If possible training areas will include relevant competition areas.
3. Identifying the portions of the Black Weir Impoundment (*the recreation areas*), that are most appropriately allocated for recreational uses, either because they have significant community recreation assets in close proximity, or because they are outside training and competition areas, and giving priority to recreational users in those areas.
4. Maintaining a booking system for competition and training areas, and taking forward bookings for those areas a minimum of six months in advance.
5. Maintaining a booking system for the recreation areas, and those parts of the competition and training areas that are not booked for competition or training use, and making those booking periods available to the general public for recreational use.

### **Competition and Training Areas**

Based on their history of use of the Black Weir Impoundment, their commitment to its protection, and their commitment to safety when using it, the Riverway Rowing Club and the Townsville Water-Skiing Club are the recognised local organising bodies for rowing and water-skiing on the impoundment.

Council has formed a group of key stakeholders comprised of representatives from internal and external organisations including Council, Maritime Safety Queensland and key recreational user groups. The purpose of these stakeholders will be to inform the Council's decision making about regulation of the competition and training areas with a focus on minimising conflict between users. These stakeholders not have voting rights of any kind.

The council will work with Maritime Safety Queensland to put in place regulations (such as speed limits) that will support the identified competition and training uses in the competition and training areas.

The council will regulate activities in competition and training areas so that it is an offence to wilfully interfere with approved (booked) competition or training activities.

If a competition or training area has been allocated long-term for use for a particular sport (e.g. water-skiing or rowing), and the recognised organising body for that sport wishes to install non-permanent infrastructure into the competition or training area (e.g. Slalom buoys or other course markings), then the council will be inclined to approve the placement of that infrastructure provided that:

1. the infrastructure does not unreasonably obstruct, or pose an unacceptable risk to, the use of the competition or training area for recreational purposes;
2. the organising body complies with all laws relevant to the placement, maintenance, use and removal of the infrastructure;
3. the organising body in writing acknowledges that the council will not be responsible to the organising body for preventing or limiting unauthorised use of the infrastructure, nor liable to the organising body for any damage caused to the infrastructure.

When there is an overlap of competition or training areas between different sports, the council will work through the coordination group to make a decision about installation of infrastructure in those areas.

## **Recreation Areas**

The council recognises that:

- the allocation of priority to sporting uses on the Black Weir Impoundment will unavoidably reduce the size of the dedicated recreational areas, and the times in which competition and training areas are available to recreational users;
- it is to be expected that there will be increasing demand for sporting use of the Black Weir Impoundment, which over time will further reduce opportunities for recreational use of the area; and
- demand by recreational users will also increase.

The council will respond to this by:

1. examining opportunities to facilitate recreational use of other water-bodies in the Townsville region;
2. employing a range of strategies to manage recreational demand upon the Black Weir Impoundment, which may include:
  - dedicated regulatory officers being on-site during periods of high demand to minimise unauthorised users and therefore conflict with users who have made bookings;
  - introducing a charging system for bookings during periods of high demand to minimise under-utilisation of booked periods;
  - requiring vessels to display a distinctive flag or marking that evidences that it is being used during an approved booking (facilitating council and public recognition of unauthorised users); and
  - other strategies that will maximise recreational opportunities given the prioritisation of sporting use.

## **Ross River Waterway Management Plan**

The council will apply the principles set out in this document and work with the working group and through public consultation to develop the Ross River Waterway Management Plan to detail the conditions of use, responsibilities of users, and relationship with the maritime safety regulations applicable to the Black Weir Impoundment and other water-areas on Ross River.

**APPENDIX G – Subordinate Local Law No. 4**

***Amendment items to Subordinate Local Law No.4 (Local Government Controlled Areas and Roads) 2011***

***Passed by Council 7/7/2015***

The following added sections of the Subordinate Local Law provide Townsville City Council with the authority to restrict activities on local waterways.

**Schedule 1 - Prohibited activities for local government controlled areas or roads - Section 5(1)**

New Item: 10

	<b>Column 1</b> <b>Local government controlled area or road</b>	<b>Column 2</b> <b>Prohibited activity</b>
10	The Aplin Weir Impoundment, The Gleeson Weir Impoundment, The Black Weir Impoundment, Lake Paluma Water Storage Area and Lake Ross Water Storage Area	(a) any activity that unreasonably interferes with the conduct of an approved activity.

**Schedule 2 - Restricted activities for local government controlled areas or roads - Section 5(2)**

New Items: 10, 11, 12 and 13

	<b>Column 1</b> <b>Local government controlled area or road</b>	<b>Column 2</b> <b>Restricted activity</b>	<b>Column 3</b> <b>Extent of restriction</b>
10	Lake Paluma Storage Area	(a) Possessing, bringing or allowing a domestic animal (other than an assistance dog, guide dog or hearing dog) into the area.	(a) Permitted only if authorised under the conditions of an approval for a prescribed activity.
11	Lake Ross Storage Area	(a) the launching or placing of any ship.	(a) Permitted only if authorised under the conditions of an approval for a prescribed activity.
		(b) any activity that involves the use of a ship.	(b) Permitted only if authorised under the conditions of an approval for a prescribed activity.
		(c) any activity within any part of the area not	(c) Permitted only if authorised under the

		clearly marked by signage as being open to public access.	conditions of an approval for a prescribed activity.
		(d) Possessing, bringing or allowing a domestic animal (other than an assistance dog, guide dog or hearing dog) into the area.	(d) Permitted only if authorised under the conditions of an approval for a prescribed activity.
12	The Aplin Weir Impoundment, the Gleeson Weir Impoundment and Lake Paluma Storage Area	(a) the launching or placing of any ship powered by an internal combustion engine.  (b) any activity that involves the use of a ship powered by an internal combustion engine.	(a) Permitted only if authorised under the conditions of an approval for a prescribed activity.  (b) Permitted only if authorised under the conditions of an approval for a prescribed activity.
13	The Black Weir Impoundment	(a) the activity of water-skiing	(a) Permitted only if authorised under the conditions of an approval for a prescribed activity.

Schedule 7 - Dictionary

New items added:

**Lake Ross Storage Area** means the area indicated by hatching on schedule 8, map 1, with the boundaries of the area being those are indicated by a bold black line circumscribing the hatched area on schedule 8, map 1.

**Lake Paluma Storage Area** means the waters impounded by the Paluma Dam, being the area indicated by hatching on schedule 8, map 2, with the boundaries of the area being those are indicated by a bold black line circumscribing the hatched area on schedule 8, map 2.

**The Aplin Weir Impoundment** means those waters impounded by the Aplin Weir, but downstream of the Gleeson Weir

**The Black Weir Impoundment** means those waters impounded by the Black Weir, but downstream of the Ross Dam.

**The Gleeson Weir Impoundment** means those waters impounded by the Gleeson Weir, but downstream of the Black Weir

New Schedule: Schedule 8 – Water Storage Areas

# Schedule 8 Water Storage Areas

