



RAPID CREEK MANAGEMENT PLAN

Prepared for

**DARWIN CITY COUNCIL
and
GREENING AUSTRALIA**

by

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STUDY TEAM

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The interest shown by these people, and their knowledge about issues of local concern provided a substantial body of information that could not have been acquired through conventional sources of research.

EXECUTIVE SUMMARY

URBAN CONTEXT

Rapid Creek is a small, relatively natural drainage system located in Darwin's Northern suburbs. The creek extends for a distance of 9.8 kilometres and drains a catchment of approximately 28 km². Unlike many such drainage lines elsewhere in urban areas, Rapid Creek supports a number of important remnant vegetation communities and the creek channel is virtually undeveloped for its entire length.

Landuse within the catchment has intensified over the past decade and in view of the increasing urban pressures Darwin City Council, Greening Australia and the community agree that the creek's remnant vegetation deserves recognition and careful management. The creek corridor is also acknowledged as a major recreation resource, including a visual resource, for the Darwin region.

MANAGEMENT OBJECTIVES, PROBLEMS AND ISSUES

There are a number of indicators that suggest that the creek continues to degrade, with further fragmentation and loss of remnant vegetation. Concerns about deteriorating water quality and loss of this important natural resource has resulted in the preparation of an integrated plan of management for Rapid Creek and its environments which will:

- stimulate greater awareness of the presence and importance of the area;
- promote increased protection and appropriate management of the whole system;
- encourage government agencies and the community to co-operate in the development of protection and rehabilitation measures for the creek system.

To address these objectives the study has involved:

- analysis of the area's resources, as well as the investigation of existing impacts and likely impacts from future development in the catchment;
- liaison with Government Departments, Statutory Authorities and the local community in determining issues in the creek that are of concern, and the options available to deal with them;
- investigation of Authorities interests, standards and sources of assistance available in relation to the creek's management.

MANAGEMENT PLAN PROPOSALS

As a result of these considerations a series of strategies for Rapid Creek are proposed for orderly, long term implementation.

Central to the success of the Management Plan would be the establishment of a management body who would take the responsibility for adopting and implementing the Plan. This group, should include representatives from Government Departments, Statutory Authorities, community groups and other groups with vested interests in the catchment. Such a group would ideally work within an appropriate legislative framework to support its role. As an alternative, a Management Committee of Council could be established within the existing legislative framework.

Regardless of what form the management body takes, they would be responsible for implementing the plan, by setting up a 10 year programme for actions as defined in this Plan, and based on the level of urgency, the opportunity, achievability and a financial strategy. This programme should then be reviewed annually to assess progress and any required amendments.

The management body would be responsible for co-ordinating and implementing strategies for creek management and rehabilitation. The strategies for creek management and rehabilitation fall into three categories, and some key elements of each are:

- **Water Management**

- Liaise with major landholders, interest groups and managers to develop a plan for water management having consideration to total catchment management.
- Undertake a community liaison and education programme to inform residents on the negative impacts of nutrients and low water flows entering the creek.
- Improve and maintain water quality by installing water management devices and reducing degrading factors in the catchment. Undertake a water monitoring programme and review yearly.
- Undertake erosion control measures within the catchment and implement stabilization works at critical points on the creek banks and at stormwater outlets.
- Reduce potential for increased flooding in the catchment.

- **Habitat Conservation**

- Manage the remnant vegetation communities and adjoining open space to optimise their habitat and ecological values through regeneration and revegetation techniques.
- Implement a weed control programme.
- Develop a fire management strategy for the different vegetation communities.
- Facilitate co-operative programmes for plant propagation, replanting and maintenance of indigenous plant material within the catchment.

- **Recreation and Access**

- Generally upgrade and enhance the Rapid Creek corridor to encourage appropriate use and enjoyment of the creek for low key, passive recreational activities.
- Instigate programmes that strengthen existing planting structures with use of indigenous plants and provide amenity for passive use (picnic facilities, playgrounds, seating).
- Develop an interpretive strategy that includes an interpretive centre, defined walks and trails, interpretive boards and brochures, to inform and educate visitors and residents of the environmental and cultural values of the creek.
- Establish a hierarchy of entrances. Plan and design these entrances to announce the creek.
- Provide for fire, emergency and maintenance access to the creek corridor. Control vehicle access otherwise.
- Wherever possible provide facilities and access appropriate for the disabled.

Landscape Character

- Manage the catchment as a coherent landscape element, emphasising the linear complete nature of the creek itself.
- Protect and enhance the natural character of the study area through regeneration and revegetation.
- Extend the landscape character of the creek via an integrated strategy for street tree planting within the creek corridor.
- Establish a coherent design approach for all urban design elements in and bordering the creek corridor.

Open Space Planning and Management

- Establish a management body to co-ordinate and implement the strategies in this plan.
- Formulate and seek endorsement by the Minister for Lands, Housing and Local Government of Land Use Objectives for the catchment area.
- Circulate the Management Plan to Government Departments, Statutory Authorities, Council and other groups for comment and liaison on common and agreed work practices in the creek.
- Seek to transfer ownership of areas of FAC and RAAF lands to public ownership to improve compatibility of management practises.
- Research and review opportunities for State and Federal funding.
- Identify the creek catchment as a distinct regional park under the umbrella name of "Rapid Creek Park".

Community Liaison

- Facilitate community liaison with management authorities, particularly through the management body and a liaison officer.
- Encourage frequent use and surveillance by the public and reporting of ordinance violations, littering and dumping to the liaison officer.
- Identify and circulate the name of an emergency contact officer.
- Develop a programme to inform the community on the creek, the catchment, associated issues and developments, walks and links to other areas.
- Liaise with local schools to establish an educational resource and ease of access to the creek and remnant bushland.

IMPLEMENTATION

The realisation of the proposed strategies will require a commitment from Government in establishing an appropriate management body. It will also depend on the continued application of sound concept development and detail design, as well as major initiatives in creek rehabilitation.

A range of typical construction details, suitable materials and plant species are provided to assist this on-going process.

Capital costs in developing aspects of the plan may be substantial. It is stressed, however, that capital costs are not the only aspects that should be considered in evaluating the creek's rehabilitation. Public health benefits, improved safety and recreational values are some of the less tangible, or more far reaching factors that must also be weighed in determining the implementation phases.

To assist with programming of the Management Plan, an assessment of priorities, opportunities and typical costs is provided, complemented by an evaluation of possible sources for additional funding.