NOOSA Council

Burgess Creek Integrated Catchment Management Plan

Summary

DRAFT for consultation

noosa.qld.gov.au

What is Burgess Creek?

Burgess Creek is a small coastal catchment on Noosa's eastern beaches, draining about 545 hectares from urban areas, wetlands and conservation land before reaching the ocean at Sunrise and Castaways Beach (Figure 1).

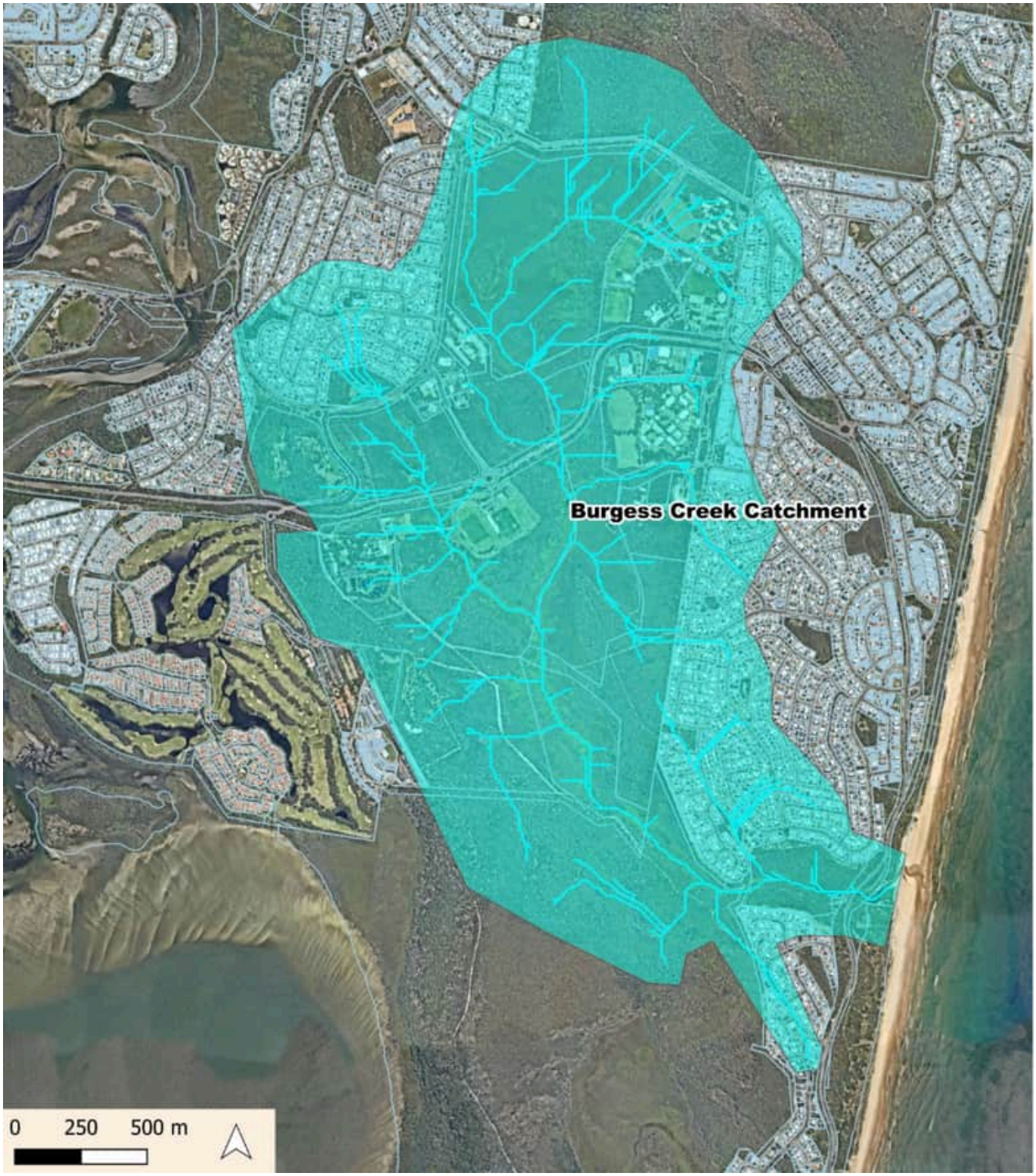


Figure 1 Burgess Creek Catchment Map

From the upper catchment to the creek mouth, Burgess Creek provides an important corridor of green space within the surrounding urban environment, supporting both ecological values and community use.

This is Kabi Kabi Country. Traditional Custodians have cared for these lands and waters for tens of thousands of years, and that connection continues today.

The area supports wallum wetlands, coastal vegetation, dune systems and important habitat for native species. These include nursery areas for fish and habitat for species such as the glossy black cockatoo (Figure 2).

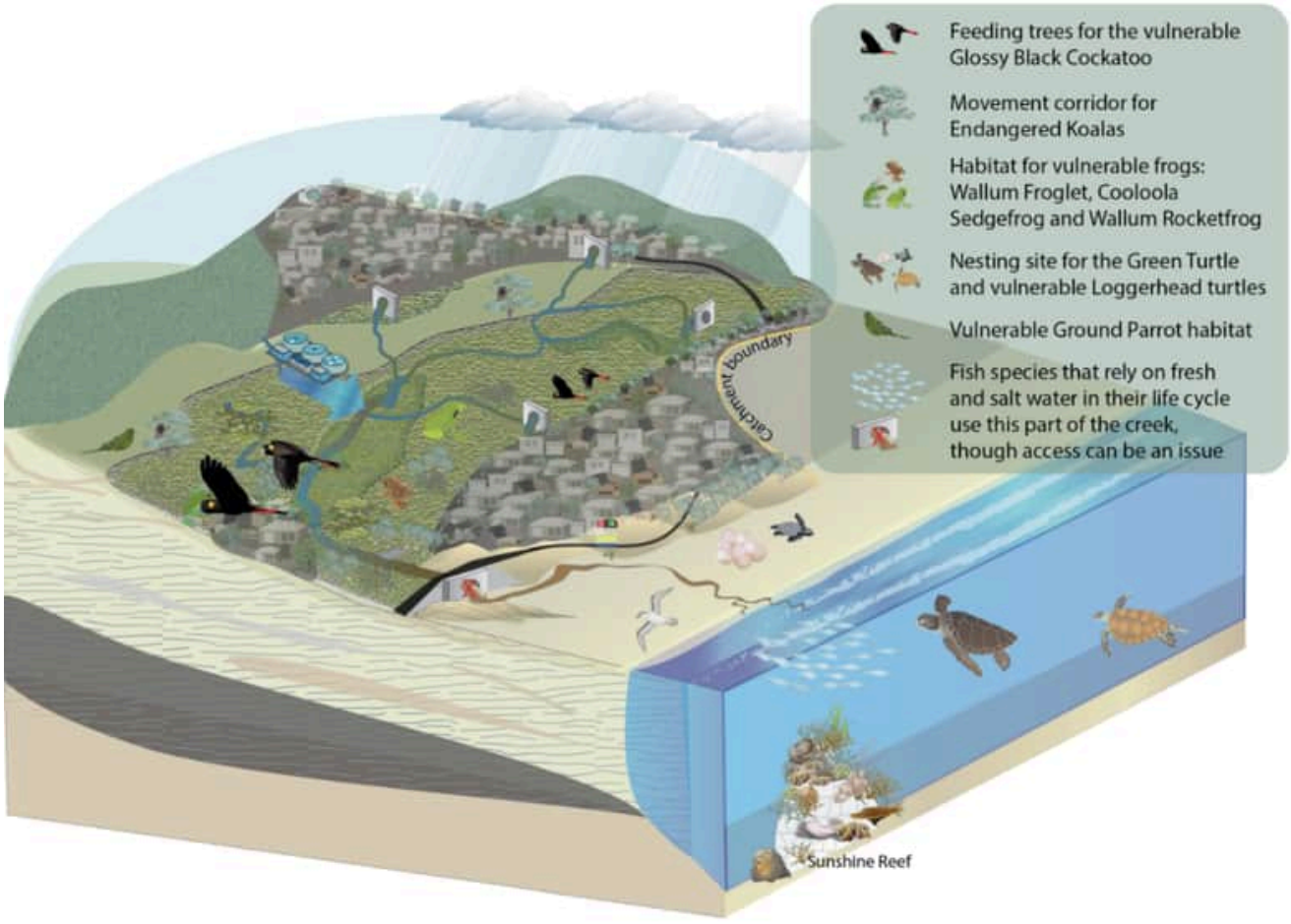


Figure 2 Key ecological values and habitats supported by the the Burgess Creek catchment

The creek's water is naturally brown due to tannins from organic material in the soil. As rainwater filters through vegetation and sandy soils, it picks up these tannins before entering the creek. This is a natural feature of the system and does not indicate pollution, although it is often misunderstood (Figure 3).

Figure 3 Tannin-stained Burgess creek

The area around the creek mouth and surrounding beach is highly valued for walking, swimming, fishing and dog exercise, making it an important community space.

Why is a plan needed?

Burgess Creek has changed over time. Urban development has increased hard surfaces such as roads and roofs, reducing how much water can soak into the ground. Instead, rainfall now runs quickly into stormwater drains, creating faster and more concentrated flows (Figure 4). This has changed how the catchment functions, with less water moving through natural groundwater systems and more flowing through stormwater drainage paths.

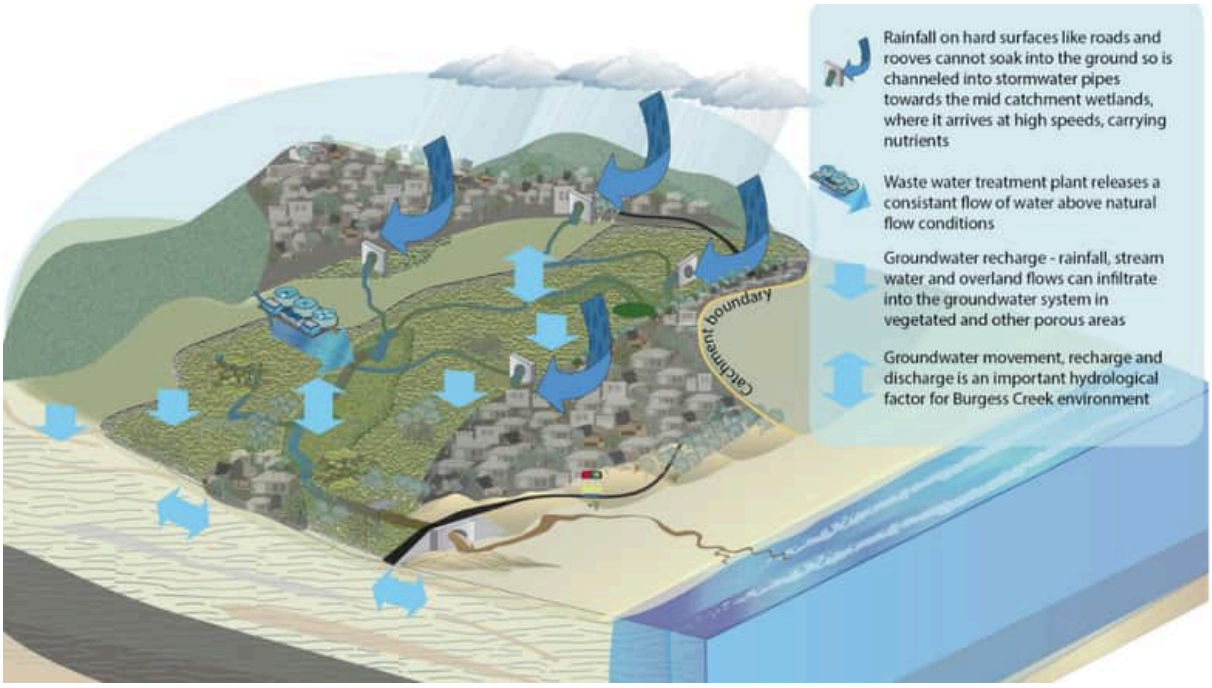


Figure 4 Conceptual model for Burgess Creek catchment.

Since the late 1990s, treated wastewater has provided a steady baseflow. Because this water is generated continuously, the creek now flows more consistently than it did in the past, when flows mainly occurred after rainfall events.

These changes have:

- altered how water moves through the system
- increased erosion
- affected wetlands and habitats
- changed water quality
- influenced how the creek meets the ocean

The creek mouth is also dynamic, shifting with changing weather conditions, waves, tides and sand movement. This affects both erosion and access to the beach.

Community concern about water quality, health risks, erosion and access highlights the need for a clear and coordinated approach.

Because the catchment is highly connected, actions in one area can affect others. This plan takes a whole-of-system approach to manage these interactions and respond to ongoing changes across the catchment.

What the plan is trying to achieve

Vision

A collaboratively managed Burgess Creek catchment where community stewardship and government leadership ensure human activities remain within the catchment's ecological capacity, supporting resilient ecosystems, biodiversity and recreational values for current and future generations.

Five key goals

1. Healthy ecosystems
Protect and improve wetlands, waterways and dunes so they support biodiversity and remain resilient over time.

2. Improved water and flow behaviour
Reduce contamination and erosion while improving how water moves through the catchment.

3. Managing pressures within limits
Ensure land use, stormwater, wastewater and recreation stay within what the system can sustain.

4. Safe and sustainable recreation
Maintain access and amenity while protecting environmental values and public health.

5. Clear and coordinated management
Improve alignment across Council, agencies and the community through shared information and ongoing learning.

How the catchment works

Burgess Creek functions as one connected system. Rainfall, stormwater, groundwater, treated wastewater and coastal processes all interact.

- Rainfall is captured and quickly delivered through stormwater systems
- Groundwater supports flow during dry periods
- Treated wastewater contributes to baseflow
- Waves, tides and sand movement influence the creek mouth

What this means

Changes in one part of the catchment can affect the whole system.

Key pressures

- Urban development and wastewater inputs have altered natural flow patterns
- Erosion caused by concentrated stormwater flows from hard surfaces
- Water quality influenced by multiple sources across the catchment
- Habitat disturbance and reduced connectivity for fauna movement
- Coastal processes affecting the creek mouth and recreational use

Key uncertainties

- Contribution of stormwater and groundwater water quality
- Groundwater flow pathways and legacy impacts
- Current ecological condition
- Stormwater infrastructure performance
- Interaction between catchment flows and coastal processes

Understanding these gaps is important for making informed decisions.

What we are focusing on

The plan is built around six key strategies:

Better coordination and decision-making
Clear roles, shared information and agreed decision pathways.

Improved stormwater performance
Reduce runoff impacts and improve how water is managed in urban areas.

Understanding and reducing pollution
Identify sources of contamination and target effective responses.

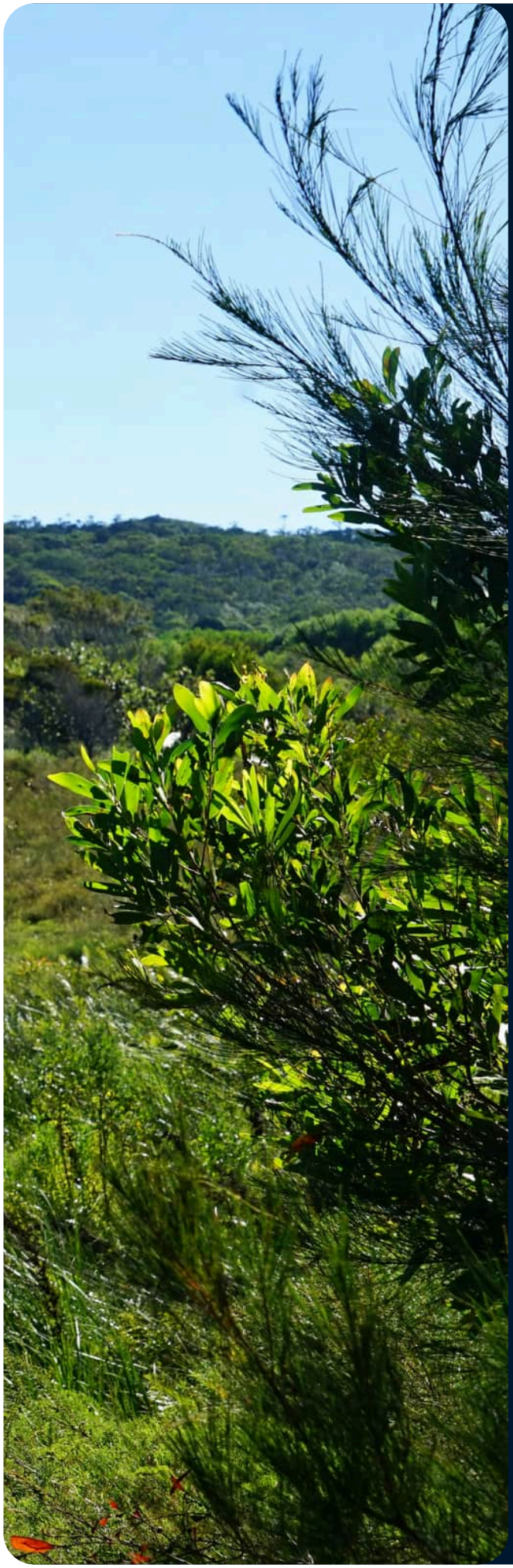
Restoring ecosystems and connectivity
Improve habitat condition, manage weeds and reconnect movement corridors.

Managing the creek mouth and erosion
Work with natural coastal processes while maintaining access and protecting dunes.

Tracking progress and adapting over time
Use monitoring and evidence to guide decisions and adjust actions.

What this means

Actions will be prioritised and refined over time as more information becomes available.



What the community has said

Community and stakeholder input has highlighted these key concerns and priorities:

Water quality and health

- Concerns about contamination, odour and the safety of the water for recreation
- Strong support for clearer monitoring and communication

Stormwater and runoff

- Need to better manage the impact of stormwater runoff on the creek and downstream environment
- Interest in reuse opportunities where appropriate

Amenity and access

- High value placed on the creek mouth and surrounding beach
- Desire for visible improvements to water quality, access and overall condition, as well as long-term solutions

Coordination

- Need for clearer roles and better collaboration across Council and partner agencies

Decision-making

- Interest in understanding when and why actions will occur

This input has directly influenced the goals and directions of the plan.

How the plan will be delivered

Actions will be progressed through:

- existing Council programs
- capital works and maintenance
- coordination across teams
- partnerships and external funding

Actions will be integrated into planned works where possible to achieve multiple outcomes.

Key principles

Staged delivery
Actions will be prioritised and sequenced over time.

Adaptive approach
Decisions will respond to new information and changing conditions.

Efficiency
Actions aim to deliver multiple benefits and align with existing programs where possible.

Coordination
Delivery will be supported by clear roles, shared information and structured decision-making across Council and partner agencies.

Community and stakeholder input will continue to inform the plan through engagement and feedback processes.

Tracking progress and managing risk

Monitoring and evaluation
Progress is tracked at three levels:

Delivery
Tracking what actions are underway or completed.

Condition
Monitoring changes in water quality, habitat and erosion.

Learning
Identifying gaps in knowledge and refining future actions.

Review
Progress is reviewed regularly through monitoring and reporting. Annual reporting summarises delivery progress and key trends, while monitoring results are used to refine priorities. Major events, such as storms, are also reviewed to improve future responses.

Risk management
The plan recognises uncertainty and changing conditions. Risk is managed by:

- identifying issues early
- using evidence to guide decisions
- adapting actions to changing conditions over time

What happens next

Next steps

- Online feedback (YourSay)
- Community workshop or forum
- Refinement and finalisation of the plan

How your feedback will be used
Community input will be considered alongside technical evidence to refine priorities and actions before the plan is finalised.

How to get involved

- Complete the YourSay survey
- Attend a community session
- Provide feedback through Council channels

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