

From activation to acceleration: thirteen years of adaptive catchment recovery in Slacks and Scrubby Creeks

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Key points

- Long-term urban stream recovery requires sustained investment in integrated planning, not just on-ground works.
- Early community activation builds awareness but does not deliver system-scale ecological change alone.
- Funding-ready project development significantly improves access to external investment.
- Small, consistent seed funding can unlock large-scale co-investment and transformational outcomes.
- Good internal coordination aligns environmental outcomes with infrastructure, flood mitigation, and amenity delivery.

Abstract

Over the past 13 years, Logan City Council has evolved its approach to urban stream recovery in the Slacks Creek and Scrubby Creek catchments, shifting from early community-activation efforts toward an infrastructure-enabled, investment-ready delivery model. Initial implementation of the 2013 Slacks Creek Recovery Plan focused on reconnecting residents with a highly degraded creek through events, public art, and volunteer planting. While effective in raising awareness, these interventions demonstrated limited capacity to drive system-scale ecological recovery within heavily modified urban channels.

Council subsequently adopted a planning-led model supported by a modest but consistent internal budget as catalytic seed funding. Alongside ongoing rehabilitation works, this funding enabled development of concept designs, feasibility assessments, fish barrier investigations, business cases, baseline monitoring frameworks and high-quality visualisations. These technical products positioned priority sites as “funding ready,” significantly improving competitiveness and responsiveness when external funding opportunities emerged. This approach attracted substantial co-investment from state, federal and internal infrastructure programs, including streams focused on climate resilience, urban renewal and recreational amenity.

Applied consistently over multiple years, this strategy enabled complex interventions—such as fish barrier remediation, channel naturalisation and constructed wetlands—to mature, de-risk and progress to delivery. The approach also strengthened cross-branch governance by providing clear, costed and spatially defined proposals that aligned environmental outcomes with asset renewal, flood mitigation and park upgrades.

This long-term approach shows how small, sustained investments in planning, organisational readiness and early concept development can accelerate urban waterway recovery.

Keywords

Urban stream restoration, adaptive management, investment readiness, catchment planning, governance, co-investment, City of Logan, waterway recovery, integrated catchment management

Introduction

Urban stream systems are among the most degraded ecosystem types globally, particularly in rapidly urbanising catchments where altered hydrology, channel modification, and legacy pollution constrain recovery (Walsh et al., 2005). These pressures can lock waterways into impaired states, where incremental rehabilitation alone delivers limited ecological gains without addressing underlying flow regimes, water quality, and habitat structure.

Despite this, urban waterways represent a significant but often under-recognised opportunity. In established urban areas, creek corridors can become the only continuous open space networks, supporting urban revitalisation, habitat connectivity, climate resilience, active transport, and community wellbeing.

In the City of Logan, Slacks and Scrubby Creeks are key urban tributaries of the Logan River, flowing through high-activity suburbs before converging along a more naturalised reach to join the Logan River (Figure 1). These catchments are home to 140,000 residents living in some of the densest neighbourhoods in Logan (Australian Bureau of Statistics 2022). Since rapid catchment development from the 1970s, both systems—particularly Slacks Creek—have experienced declining water quality, reduced ecosystem health, and diminished public connection. In response, the Slacks Creek Catchment Recovery Initiative (2013) and Scrubby Creek Catchment Recovery Plan (2019) were established to restore these waterways as clean, active, and valued community assets.

Over time, Logan City Council has shifted toward a more integrated model of catchment management, linking ecological recovery with urban revitalisation, asset renewal, resilience, and connectivity. This paper presents a practical case study of how urban stream recovery can adapt in response to constraints and changing investment priorities.

Like many urban waterways, Slacks and Scrubby Creeks function simultaneously as:

1. Drainage and flood conveyance systems.
2. Public open space corridors.
3. Ecological linkages with biodiversity potential.
4. Corridors for active transport, place-making, and urban renewal.

This multifunctional role underpins the evolution of the recovery program, where ecological outcomes increasingly depend on alignment with infrastructure delivery and urban amenity objectives.

This paper reflects on thirteen years of implementation and identifies the critical role of:

- Adaptability and capacity to pivot towards evolving priorities with less reliance on prescriptive action plans and an encouragement towards aligning other Council projects towards catchment recovery goals.
- Sustained internal investment as a catalyst for continuity and capability.
- Development of investment-ready projects to enable rapid response to funding opportunities.
- Integration across infrastructure and environmental programs to unlock co-benefits, and co-funding.

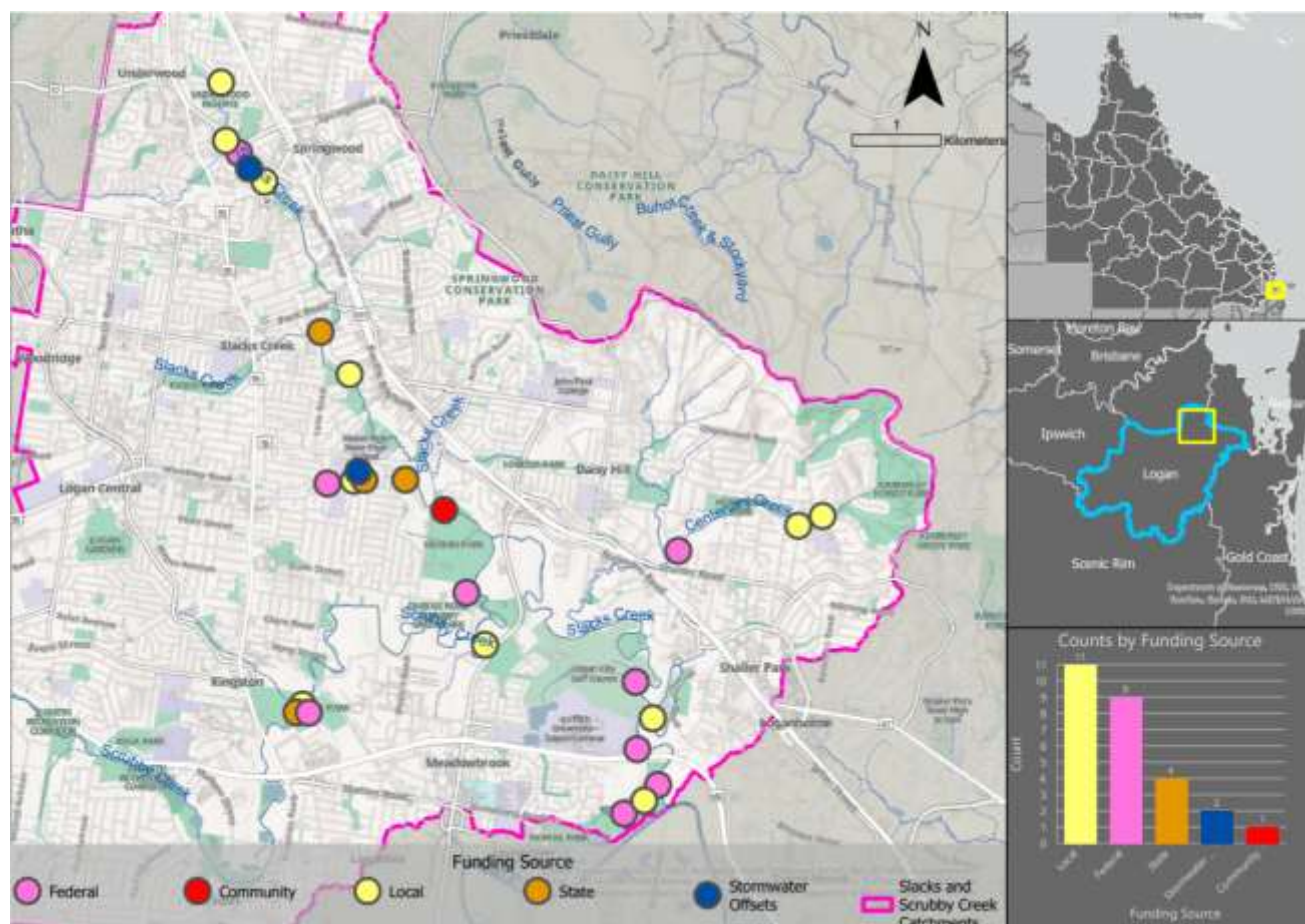


Figure 1 Catchment map showing Slacks and Scrubby Creek catchments. Project locations and funding sources are indicated by the coloured dots

Evolution of the creek recovery approach in the City of Logan

Phase 1 — Community activation focused on Slacks Creek (2013–2020)

Initial implementation focused on reconnecting community and stakeholders with a waterway that had become both physically and psychologically invisible in the urban landscape. Supported by development of the *Slacks Creek Catchment Futures Study – Vision and Initiatives Report* (Logan City Council 2013), Council made a strong early investment in delivering a diverse set of activation and localised rehabilitation activities, including:

- large litter clean-ups;
- riparian rehabilitation, fish passage improvements, revegetation of the more naturalised reaches; and
- volunteer planting days, place-making art installations, community events, interpretive signs.



Figure 2 Photos showing some of the place-making, public art installations, community events and fish passage improvement around the Slacks Creek catchment

These initiatives were successful in:

- raising public awareness and interest in stewardship;
- building political and organisational support for a long-term recovery vision;
- identifying Slacks Creek as a strategic corridor for active transport and connected parkland through Logan’s urban heart; and
- securing \$1.7 million dollars in external funding for targeted habitat enhancement projects in lower, less-urbanised reaches, including fish passage improvements, and a wetland and interpretive boardwalk pilot with a strong community engagement component.

This phase also achieved an important but often overlooked outcome: it produced compelling imagery and narratives that helped people see a different future for the creek (Figure 3). These visuals and stories developed through the *Slacks Creek Catchment Futures Study – Vision and Initiatives Report* and included again in the *Scrubby Creek Recovery Plan* (Logan City Council, 2019), helped build internal support and later informed corridor master planning and the “look and feel” of emerging active transport concepts taken up by other parts of Council.

Four Different Catchment Applications



Figure 3 Aspirational images produced in the Slacks Creek Futures Study – Vision and Initiatives Report (Logan City Council 2013)

Despite these successes, ecological outcomes, connectivity, and sustained larger-scale investment remained constrained by:

- highly modified channel form and limited habitat complexity;
- heterogeneous land ownership through the corridor;
- Council budgetary constraints;
- altered hydrology and pollutant mobilisation with significant flows off highly impervious sub-catchments;
- significant in-stream barriers limiting fish passage and connectivity; and
- the scale and interdependence of issues, making it difficult to demonstrate transformational outcomes through localised works alone.

Phase 1 built legitimacy, awareness, and a foundation of support — but it did not, on its own, unlock the type of co-funded, transformative interventions needed to shift creek trajectories.

Phase 2 — Planning-led foundation building to drive co-investment (2021–present)

Recognising Phase 1 limitations, Council moved to an integrated, planning-led model supported by modest but consistent internal investment. This funding can demonstrate Council's in-kind commitment to external grant applications and support ongoing maintenance of project sites into the future. This shift focused on developing investment-ready projects through up-front technical and strategic work in consultation with infrastructure delivery branches within Council. The Phase 1 work to promote the Slacks Creek corridor as an active transport link directly supported a successful bid by Council to secure Queensland Government co-funding to deliver the \$3.2 million stage one of the Slacks Creek Green Link cycle way (Figure 4).



Figure 4 Images showing stage one of the Slacks Creek Green Link cycle way linking Springwood to Logan Central

During Phase 2 of the creek recovery approach, recurrent internal funds have been used to produce:

- concept designs and visualisations;
- feasibility studies and options assessments;
- planting plans guided by flood modelling;
- fish barrier assessments and prioritisation;
- business cases and cost estimates;
- land tenure and access pathway solutions; and
- litter management strategies.

This phase established a pipeline of priority projects with:

- defined scope and buy-in across Council branches;
- realistic cost estimates and delivery staging;

- demonstrated technical feasibility;
- clear shared co-benefits (ecological, social, and asset/risk);
- ability to meet grant assessment criteria; and
- alignment to corporate priorities (e.g., resilience, parks upgrades, flood/drainage programs).

A key feature of this phase was active engagement with infrastructure delivery branches to identify projects already planned (e.g., bridge renewals, weir upgrades, drainage works, active transport corridors) that could be adjusted to deliver catchment recovery outcomes. This approach in Scrubby Creek has recently also been applied to aging weirs and bridges that presented asset management risks requiring renewal investment (Figure 5). By reframing certain renewals as opportunities for fish passage restoration and ecological enhancement, Council could deliver risk reduction and asset outcomes for infrastructure branches while also leveraging external grants to improve affordability and scope.



Figure 5 Queens Road fishway and pedestrian bridge to replace aging and inappropriately sized culverts for the previous pedestrian bridge. Delivery of this infrastructure included a rock fish ramp so support fish passage

Alongside this work, Council also improved internal processes to provide better direction on how to deliver infrastructure projects in ways that seek to avoid, minimise and mitigate environmental impact and achieve better alignment with strategic environmental objectives.

Leveraging investment readiness into co-funding

The establishment of a funding-ready project pipeline enabled Council to respond rapidly to external funding opportunities while continuing annual incremental works (weed management, litter management, revegetation) that maintained momentum and improved condition over time.

A defining feature of the Slacks and Scrubby Creeks recovery Phase 2 approach is the planning-led investment model that uses project readiness to support capital delivery.

Over a five-year period in Slacks Creek, Council leveraged an annual internal investment of approximately \$250k (total ~\$1.4m) to secure approximately \$5.7m in external funding* and stormwater offsets to deliver a large-scale channel naturalisation project at Mabel Park in the Slacks Creek catchment (Figure 6).



Figure 6 Concrete channel that will be naturalised as part of the co-funded project in Slacks Creek

This co-investment will enable delivery of works along a Slacks Creek tributary including:

- fish barrier remediation and improved longitudinal connectivity;
- constructed wetlands providing water quality and habitat functions; and
- corridor stabilisation, revegetation, and amenity improvements.

An investment of \$300,000 over two years in the Scrubby Creek catchment, including funds spent on feasibility studies and concept designs has helped secure a further \$1 million in external funding** to undertake removal of an aging weir across the creek to reconnect fish habitat.

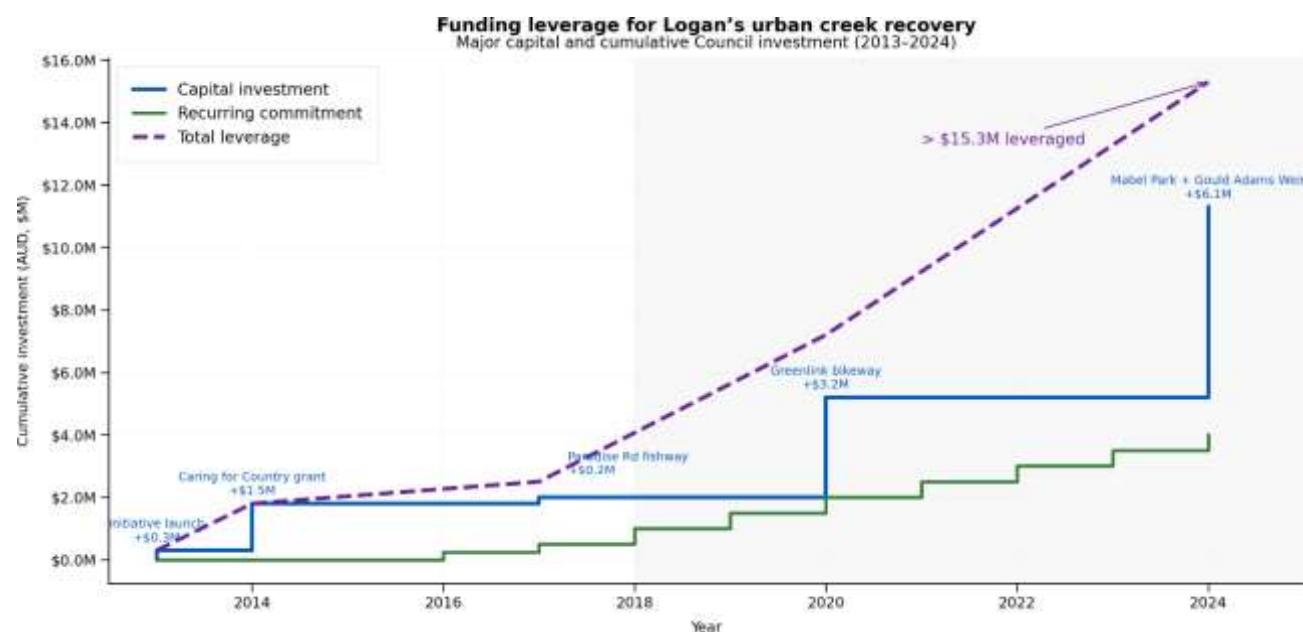


Figure 7 Chart showing cumulative internal and external funding of projects delivered that support the Slacks and Scrubby recovery approach

This model demonstrates that:

- relatively small, sustained internal funding allocations can attract significantly larger external investment (Figure 7);
- investment in planning is critical to accessing competitive funding programs; and
- clearly scoped, costed, and visualised projects are more likely to secure co-investment.

Importantly, projects progressed beyond standalone environmental works and were integrated with:

- flood mitigation and drainage upgrades;

- parks renewal and public realm improvements;
- urban renewal and place-making objectives; and
- operations/maintenance considerations.

Key lessons from thirteen years of Logan's urban creek recovery:

1. **Community engagement is necessary but not sufficient.**
Activation builds support and stewardship, but durable ecological recovery requires structural interventions that address hydrology, habitat, and connectivity constraints.
2. **Planning is a critical investment phase.**
Concept designs, feasibility, and business cases create the foundations for scaled delivery.
3. **Small seed funding can attract larger investment.**
Modest but consistent internal investment creates continuity, capability, and credibility — and enables co-funding leverage.
4. **Investment readiness accelerates delivery.**
Having projects “on the shelf” allows rapid response to funding opportunities and reduces unforeseen costs.
5. **Integration drives scale.**
Aligning environmental outcomes with infrastructure priorities expands funding pathways and enables multi-benefit projects (risk reduction, renewal, resilience, amenity).
6. **Embrace incrementalism — nothing changes overnight.**
Commitment to annual small-scale works maintains momentum and community belief while larger projects are developed, funded, and delivered.

Where to next?

Logan's urban creek recovery model continues towards greater integration with climate resilience and urban livability objectives. Priority directions include:

- Additional channel naturalisation and stormwater program integration - contributing to scoping and design to support the embedding of daylighting and nature-based solutions into drainage master planning and legacy stormwater issue remediation.
- Urban heat mitigation trials - using the creek corridors for cooling through canopy expansion, shade structures, and material interventions aligned with infrastructure upgrades
- Neighbourhood biodiversity blitzes and targeted habitat connections to promote and enhance biodiversity value in locations not historically prioritised for conservation.
- Continue to drive better practice environmental governance for infrastructure projects where infrastructure renewal works can be used to increase tree canopy and water sensitive urban design outcomes.

A transferable model for other councils

The Logan experience suggests the following scalable approach to urban stream recovery that can be adapted by other local governments:

- establish a consistent internal funding stream for planning and pipeline development;
- build a prioritised suite of shovel-ready / investment-ready projects;
- align ecological outcomes with infrastructure renewal and resilience priorities;
- use clear visualisations and business cases to communicate value; and
- track and report co-investment, delivery outputs, and outcomes over time.

Conclusions

The Slacks and Scrubby Creek catchment recovery journey demonstrates how urban stream recovery programs can evolve from community-led activation toward planning-led, investment-enabled delivery. While early engagement is important to build stewardship and legitimacy, transformational outcomes require sustained seed funding, technical readiness, and coordination across Council branches. Logan

City Council's experience shows that modest internal investment can unlock significant co-funding and deliver projects that simultaneously improve ecological condition, reduce asset risk, support active transport and amenity, and strengthen urban resilience.

Acknowledgements

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** The Gould Adams Park (Scrubby Creek) Weir Removal and Fishway project is jointly funded by Resilient Rivers SEQ, as part of the South East Queensland (SEQ) City Deal, and council. Resilient Rivers SEQ is one of 29 commitments being delivered under the SEQ City Deal, a partnership between the Australian Government, Queensland Government and Council of Mayors (SEQ). The SEQ City Deal aims to improve the accessibility, prosperity and liveability of the region, which is home to more than four million residents. Council is providing remaining funds for the Gould Adams Park (Scrubby Creek) Weir Removal and Fishway project.

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