3.2. EMERGENT WORKS - NEWELL BEACH WATER MAIN REPAIR

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RECOMMENDATION

That Council resolve to:

1. **Transfer $40,000 from the Daintree intake project, $40,000 from the Port Douglas Wastewater Treatment Plant aerators and diffusers project, $20,000 from the North Mossman sewer pump station project, $30,000 from the Port Douglas Wastewater Treatment Plant road renewal project and $15,000 from the sewer network manhole raising project to the emergent works to repair the Newell Beach water main rupture.**

EXECUTIVE SUMMARY

A significant rupture has been discovered in the water main supplying Newell Beach. The rupture is 1.5m below the bed of Carson Creek adjacent to Mossman-Daintree Road and extremely difficult to access. The rupture does not present a risk to public health.

In order to effect repairs on this emergent work, it is necessary to transfer savings from other funded projects in the 2019/2020 capital budget.

BACKGROUND

The 150mm AC main that was installed in 1960 was trenched through Carson Creek to supply mains water to Newell Beach. To avoid being scoured by the creek it was installed 1.5m below the creek bed, to achieve this the pipe was also buried at a depth of 4.5m either side of the creek in the creek bank and for some distance leading to the creek. In the succeeding 60 years there has been significant tree growth on the creek bank and in the creek, which now presents significant challenges both physically and environmentally in accessing the pipe.

A significant leak has been detected in the main under the creek bed which was difficult to locate due to the creek remaining active this year. An initial assessment and cost estimate was produced to excavate in the creek and replace three sections of AC main however due to the complications of working in the creek alternatives were explored. One alternative is to connect to the main some distance from the creek and lay a new 150mm poly pipe adjacent to Mossman-Daintree Road and across the top of the culvert over Carson Creek.

This has been discussed with DTMR and is the preferred option. The other solution is to crack the main and pull through another pipe, the depth of the pipe for the entry and exit pits and vegetation over the main has increased the cost of this option.

All three solutions have their pros and cons and would cost over $120,000 to implement.

COMMENT

The main rupture has necessitated emergent works for the repair. Due to the difficult location of the rupture and connected pipes the repair is unusually expensive. The preferred solution provides the best value for money by renewing a large section of main that was approaching its end of life and positioning the new main in a location that is readily accessible for any future works.

In order for this emergent work to be completed, it is necessary to transfer savings from other funded projects within the 2019/2020 capital budget. If the budget is transferred, Council will be able to complete the main repair works this financial year.

PROPOSAL

That Council resolve to:

1. Transfer $40,000 from the Daintree intake project, $40,000 from the Port Douglas Wastewater Treatment Plant aerators and diffusers project, $20,000 from the North Mossman sewer pump station project, $30,000 from the Port Douglas Wastewater Treatment Plant road renewal project and $15,000 from the sewer network manhole raising project to the emergent works to repair the Newell Beach water main rupture.

FINANCIAL/RESOURCE IMPLICATIONS

It is estimated that $145,000 is required to complete the required repairs to the water main and remove it from Carson Creek and adjacent vegetation.

This additional budget can be allocated from the following existing projects within the 2019/2020 capital budget:

1. $40,000 in savings has been identified in the Daintree Intake pipework and access track renewal which is 100% complete;

2. $40,000 in savings has been identified in the Port Douglas Wastewater Treatment Plant aerators and diffusers assessment which is 100% complete;

3. $20,000 in savings has been identified in the Upgrade pipework to north Mossman sewer pump station project which is 100% complete;

4. $30,000 in savings has been identified in the Port Douglas Wastewater Treatment Plant road renewal project with works nearing completion; and

5. $15,000 in savings has been identified in the sewer network manhole raising project which is nearing completion.

RISK MANAGEMENT IMPLICATIONS

Trees and other vegetation have grown significantly in the 60 years since the main was installed making it difficult to repair or realign without causing significant environmental impact to the watercourse and associated trees and vegetation. The existing main is approaching end of life at which time the alignment of the main would need to be changed to avoid excavation in Carson Creek.

SUSTAINABILITY IMPLICATIONS

Economic: Performing a quick fix solution to the ageing water main leak will cost the council more money long term, it is economically a better solution to renew the water main with new infrastructure.

Environmental: The location of the water main leak is inaccessible without significant environmental impact. Large trees and wildlife (crocodiles) are located in the work zone if the main was repaired in situ.

Social: Greater value for money is achieved in realigning the main away from the creek bed, future principal cycle network bike path infrastructure will span Carson Creek at which time the mater main can be removed from the DTMR asset and attached to the cycleway asset.

CORPORATE/OPERATIONAL PLAN, POLICY REFERENCE

This report has been prepared in accordance with the following:

Corporate Plan 2019-2024 Initiatives:

Theme 3 - Leading Environmental Stewardship

Our visitors and residents deeply value the unparalleled environment in which we live. We recognise our responsibility in protecting and preserving our natural world for generations to come. We understand the strong link between the environment and the economy: they are interdependent. Douglas Shire will be at the forefront of environmental protection by developing strategies, setting policies, and working with all stakeholders to become the envy of and to inspire locations across Australia and the World.

Goal 3 - *We will continue to build water infrastructure so that the Douglas Shire may enjoy water security and water quality.*

COUNCIL'S ROLE

Council can play a number of different roles in certain circumstances and it is important to be clear about which role is appropriate for a specific purpose or circumstance. The implementation of actions will be a collective effort and Council's involvement will vary from information only through to full responsibility for delivery.

The following areas outline where Council has a clear responsibility to act:

Builder/Owner Council makes a significant investment every year in the infrastructure that underpins the Shire through its capital works program. Council will manage its assets with appropriate frameworks and deliver its projects through robust project management.

Information Provider Council provides the community with important information on services, events, policies, rules, strategies, and any other relevant data that helps the community to stay informed. In performing this role, Council seeks to be open and transparent.

Regulator	Council has a number of statutory obligations detailed in numerous regulations and legislative Acts. Council also makes local laws to ensure that the Shire is well governed. In fulfilling its role as regulator, Council will utilise an outcomes based approach that balances the needs of the community with social and natural justice.

CONSULTATION

Internal:	In preparing this report, consultation was undertaken with the Water Reticulation team and Coordinator Water and Wastewater.
External:	Consultation has been undertaken with external contractors and State Government departments.

COMMUNITY ENGAGEMENT

During the project Council media will advise community via social media outlets, newspapers and council website details of the construction.

ATTACHMENTS

Nil