

## Report No. 13.20 Project update - Additional Flow Path

**Directorate:** Infrastructure Services

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**File No:** I2023/874

### 5 Report

This Report aims to address the Notice of Motion put forward by Councillors on 12 April 2023 regarding the progress of the Additional Flow Path (AFP) project, which includes the following questions:

1. *How often it is used and in what conditions, i.e., wet weather and dry weather.*
- 10 2. *The amount of water transferred down it from the STP under various conditions, including as a percentage of total out flows.*
3. *Any filling that has been done to grade the drain toward west Byron and its effectiveness.*
4. *Performance relative to initial project objectives.*
- 15 5. *Impact on the amount of water leaving the STP through the drain on the Flick's property.*

The Utilities team has produced and compiled documentation to clarify the status of the AFP and its commissioning and provide insight to Council about the complex operational and strategic environment within this system is to perform. This documentation includes:

- 20 - **Technical memo – Additional Flow Path status (E2023/54593):** Provides an overview of the AFP project status, performance objectives, operational protocols, monitoring and evaluation approach, program for finalising AFP commissioning, and knowledge gaps and risks.
- 25 - **Draft operating manual and functional specification – Byron Bay Sewer Treatment Plant Additional Flow Path & distribution pit (E2023/54928):** Describes the current operational strategy to distribute effluent via the AFP and the Byron Bay Integrated Water Management Reserve (BBIWMR).
- 30 - **Byron Bay Integrated Water Management Reserve (BBIWMR) surface and ground water review (E2023/19414):** This report reviews and analyses BBIWMR monitoring data and previous investigations to determine if the BBIWMR is the cause of the perceived increase in waterlogging on adjacent properties, or if other external factors are the cause.

These documents have been attached for detailed review if required. The high-level message to Council is that:

- 35 - The AFP has been constructed and work is underway to establish the required monitoring network to manage the release of effluent in a way that caters for the various strategic objectives related to the AFP and the BBIWMR (reduction effluent

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discharge, effluent reuse, management of ASS and peat fires, environmental flows for biodiversity, etc.)

- 5 - AFP commissioning will be done via a staged and incremental approach to release effluent. This will allow for monitoring and assessment of system performance under a range of conditions. Effluent release trials are scheduled for late June 2023.
- 10 - Careful interpretation and analysis of available information suggests that increase in surface water levels within the Farm Drain and Upper Union Drain correspond with recent La Niña conditions, with rainfall being the strongest driver for changes in water levels. It is also suggested that water logging in low lying areas may be due to insufficient conveyance capacity / constrains in the drainage network. Also, further monitoring infrastructure is required to better understand groundwater dynamics across and around the BBIWMR site and surrounding areas.
- 15 - The interphase between treated effluent disposal systems (e.g. AFP and BBIWMR) and catchment hydrology (e.g. drainage / stormwater networks) is a complex area of work that requires adequate coordination across the various Council departments involved in this issue (Utilities, Works, Environmental and Economic Planning). There are opportunities for improved efficiency, clarity on roles/responsibilities and funding arrangement across these departments to better operate, maintain and  
20 monitor performance of drainage / stormwater networks.

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### 25 **RECOMMENDATION:**

**That Council notes the Additional Flow Path (AFP) project updates in the report.**

#### **Attachments:**

- 30 1 Technical memo - Additional Flow Path status, E2023/54593
- 2 Draft operation manual and functional specification - Byron Bay Sewer Treatment Plant Additional Flow Path & distribution pit, E2023/54928
- 3 Byron Bay Integrated Water Management Reserve (BBIWMR) surface and ground water review, E2023/19414

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