

## 13.4 HAT HEAD VACUUM SEWERAGE SYSTEM CAPACITY INVESTIGATION

**Officer** Erin Fuller, Manager Strategic & Asset Planning  
**File No** F12/1529  
**Attachments** Nil

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### PURPOSE

To report on the capacity analysis undertaken for Hat Head sewerage scheme.

To seek Council's endorsement to prepare a planning proposal to introduce changes to the Kempsey Local Environmental Plan (KLEP) 2013 and the Kempsey Development Control Plan (KDCP) 2013 to ensure dwelling density does not exceed the capacity of the local sewerage scheme.

### RECOMMENDATION

**That Council note that the Hat Head Sewerage Scheme is at capacity as described in this report and recognise the inherent public health, environmental, financial and social risks associated with potential overloading of the system from future development.**

2. **That Council going forward, for the purpose of assessing sewer system capacity for new development, allow a maximum of 1 dwelling or 1 Equivalent Tenement (ET) entitlement to each existing allotment within the Hat Head Sewerage Scheme.**
3. **That Council regard the likely risks of any proposed development within the Hat Head Sewerage Scheme area which would exceed the maximum dwelling or ET allocation as a relevant consideration in evaluating environmental and social impacts and site suitability issues pursuant to section 4.15 of the *Environmental Planning and Assessment Act 1979* (the Act).**
4. **That Council take the necessary steps to prepare and exhibit a planning proposal pursuant to section 3.33 of the Act, expressing the objective and intended outcomes of proposed changes to the *Kempsey Local Environmental Plan 2013* (LEP) described in this report, and Council receive a further report at the conclusion of community consultation.**
5. **That Council take the necessary steps to amend the *Kempsey Development Control Plan 2013 Chapter F2: Hat Head* (DCP) pursuant to section 3.43 of the Act and as described in the report, including removing the reference to on-site sewerage treatment as an option for new development, and Council receive a further report at the conclusion of community consultation.**
6. **That Council continue to assess the overall scheme condition and conduct preventative maintenance to avoid the scheme having issues ensuring it operates efficiently.**

### BACKGROUND

## Current sewerage scheme

The Hat Head Vacuum Sewerage Scheme currently services around 300 residential lots, and 80 hectares of residential area with a few commercial buildings and a caravan park. The scheme is surrounded by the Hat Head National Park, with critical scheme infrastructure such as the Sewerage Treatment Plant (STP), Sewerage Pumping Station (SPS) and effluent disposal area located adjacent to sensitive National Park ecosystems.



*Figure 1: Hat Head Catchment Area*

The reticulation network is distributed over two zones — north with Line A and to the south with Line B, as shown in Figure 1. The vacuum sewerage scheme was designed by AIRVAC-RSM (now known as FLOVAC) in 2002. The Sewerage network and treatment was designed and constructed to cater for the existing village and approved development areas only, with no allowance for any increase in the density of development resulting from urban consolidation through, for example, dual occupancy developments.

## Review of sewerage scheme capacity

The current Development Control Plan Chapter F2: Hat Head (DCP) stipulates Council will undertake ongoing review of the scheme capacity. The DCP also states that Council shall not consent to any development likely to increase effluent loadings until such time as it has determined that sewerage infrastructure is adequate, and a detailed DCP addressing infrastructure servicing and other development constraints has been prepared.

In 2018 Council engaged FLOVAC Systems to perform a capacity analysis of the Hat Head Sewerage Scheme, which included an initial desktop study followed by an on-site assessment/validation. The report identified the Hat Head Vacuum Sewerage Scheme is operationally sound and is adequate for the existing catchment.

The capacity analysis report also highlighted that the scheme is at full capacity in the areas surrounding the caravan park and has overall limited capacity to facilitate further connections to the scheme. The report also recommended that Council consider the operational issues and network capacity constraints currently present within the scheme when considering additional connections.

## **Risks**

The scheme is located adjacent to sensitive ecological communities located in the Hat Head National Park. The scheme has strict environmental controls on the management and disposal of effluent, limiting options for expansion. Should the scheme be overloaded and discharge untreated effluent into the sensitive ecological area, Council would bear the cost of remediation. In addition, Council may be subject to compliance action and public criticism, resulting in further financial and reputational risk.

Due to the potential public health, environmental, financial and social risks associated with the sewerage schemes overloading, it is critical for Council to ensure there is operating buffer in the design capacity to support real time operations. This buffer ensures there is additional capacity in the scheme to meet peak loading events and emergency operational situations. The limited capacity available in the scheme highlighted in the report, is viewed as the minimal operational buffer needed to operate the scheme efficiently and therefore needs to be maintained.

## **Land-use planning**

The KLEP 2013 allows further subdivision within the village down to a minimum lot size of 500 square metres for land zoned RU5 Village. Such densification is inconsistent with the controls required to manage the impacts on the sewerage system and would lead to an overload. To support the recommendations of this report, it is proposed to prepare a planning proposal to amend the development controls in the KLEP 2013. The objective of the planning proposal is to ensure future development within the Hat Head village does not compromise the capacity of the Hat Head Sewerage Scheme. The intended outcomes of the proposal comprise:

- Ensuring the objectives of the RU5 Rural Village Zone require development to take infrastructure capacity into consideration.
- Ensuring the Minimum Lot Size within the Hat Head village is such that further subdivision does not create potential for new dwellings which would overload the sewerage scheme.
- Ensuring the KLEP 2013 is consistent with the existing KDCP 2013 objectives to maintain the character of the Hat Head village.

The KDCP states that Council will continue to review the capacity of the Hat Head Sewerage Scheme having regard to the ongoing collection of data related to water usage and the performance of the dune disposal area, changing technologies and environmental performance standards. The KDCP 2013 also allows an alternative development option to manage sewerage using an on-site system. Due to the small lot size and proximity to the sensitive nearby environment, these solutions are not considered viable. It is proposed to remove these options from the KDCP 2013 requirements. It is

also proposed to change the background text for consistency with the recommendations in this report.

### **Development activity**

There are currently several illegal developments and prospective developers waiting for the capacity analysis to inform Council Officers on the appropriate method for assessment and action. The completion of the capacity investigation and adoption of these recommendations will provide certainty to the assessing officers and allow for the appropriate action to be applied.

## **KEY CONSIDERATIONS**

### **Policy and legislative**

The changes to the KLEP 2013 and KDCP 2013 are proposed in accordance with the relevant parts of the Act and associated Regulation.

Note that the recommended actions are not retrospective and will not affect any existing developments approved prior to the consideration of this report.

### **Strategic alignment**

The proposed changes are aligned with current strategies and plans. The Hat Head Vacuum Sewerage Scheme capacity analysis and associated recommendations in this report have been driven by key actions identified in the:

- KDCP 2013, Chapter F2: Hat Head
- Local Growth Management Strategy (Residential component)– Part 5 – Current Capacity of Zoned Land-Hat Head

The proposed changes provide clarity and certainty with respect to the strategic management of infrastructure and development.

### **Impact on financial sustainability**

The proposed planning controls for the Hat Head village will ensure that Kempsey Shire Council will not incur any sewerage upgrade costs associated with unaccounted additional load on the scheme.

Major sewerage network upgrades required to facilitate urban consolidation of the Hat Head village are not identified in the current Developer Servicing Plan (DSP) for Sewerage Services. This exclusion means Council is not collecting any development contributions to facilitate the delivery of the required upgrades to meet an additional demand on the scheme.

### **Stakeholder engagement**

The community will be informed through the mandatory public exhibition of the proposed KLEP 2013 and KDCP 2013 changes set out above.

Key internal stakeholders who have provided input to this report include:

- Manager Water and Sewer
- Manager Strategic and Asset Planning
- Coordinator Water and Sewer Services Planning

- Coordinator Strategic & Environmental Planning
- Project Manager Water & Sewer