

# Bourne Rivulet Initiative Update

A core focal area for the group remains Southern Water's progress in addressing deficiencies in the sewage system serving the valley.

Other areas addressed over the year include:

- P levels above and below the watercress farm
- Invertebrate population monitoring
- Sediment Pathways work
- Plans for a wetland below the watercress farm

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## **Sewage Infrastructure:**

- Southern Water report completion of works to seal laterals  
But BRI members have concerns that the numerous connections to an aged infrastructure will never be proof of submersion at high groundwater.
- Concern also that in low groundwater any leaks allow sewage ingress to surface gravels – which are in hydraulic continuity with the Bourne when the table rises.
- Further concern that Planning Consent has been granted for over 30 new houses above the (often overwhelmed) pumping station. Clarity being sought as to how their sewage will be managed.

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## Phosphorus levels

- Elevated P levels detected above the watercress farm continue to be investigated. A potential indicator of sewage ingress to surface gravels?
- Whilst the EA will require compliance with reduced P discharge from watercress farms operated on the upper Itchen, no such Permits are proposed for The Bourne/Test.

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## **Invertebrate Population Monitoring:**

- Recent surveys revealed depressed invertebrate and biotic scores both above and below the watercress farm.
- A potential linkage to elevated P levels has been suggested and is under investigation.
- Gammarus levels have been of particular concern. Some recovery is evidenced by a recent Western Channel survey but numbers in the Eastern Channel below the watercress farm remain low.

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Vitacress have undertaken several initiatives to address the issue impacting the Eastern Channel:

- Recycled gravel use was suspended last year (as there was concern this was introducing sediments to the discharge) A new gravel extraction system has been purchased to eliminate the need for decomposing spoil heaps and to provide washed gravel to beds
- A study employing caged Gammarus was undertaken, showing concern only with the salad wash water before it entered the system designed to eliminate the mustard oils (but not after mitigation and release to the Bourne)
- An engineering consultant was commissioned to review site systems concerned with managing factory discharges and gave a clean bill of health
- NOTE since that review Vitacress further scrutiny revealed a possible pathway for untreated wash water to reach the discharge ...still under investigation with a commitment to rectify any system failures.

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## **Sediment Pathways:**

- The Test and Itchen Catchment Partnership included the Bourne as one of two pilot studies aimed at identification and mitigation of farm track and road run off.
- Positive results reported through constructive engagement with Highways Authority.

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## **Wetland:**

- The potential for Vitacress to create a wetland to “polish” its discharge boost local biodiversity continues to be explored, with a recent affirmation of support by the group for its construction below the farm.