

Ash and Martock Nature Phosphate Survey

Report 1

Upper Parrett, February 2022

For the purposes of this report the Upper Parrett is defined as the river system upstream of the A303 bridge at Martock.

The Survey points

The survey points have been identified as places in the catchment where a knowledge of the phosphate concentration will give us important information about what is (or is not) happening upstream. Others will probably be added in due course. The points A to L are shown on the map below (not all show because they are too close together). All sample points are from public roads or rights of way.

Emerging Issues

1. There appears to be a universal background phosphate level in all watercourses. This is classified as Moderate to Poor based on UKTAG criteria¹ which is high by national standards. It is very probably due to legacy phosphate that has built up in sediments and soils over time and may sometimes be exacerbated by lax attention to the Defra Rules for Farming near Water.
2. No watercourse in the area has yet been noted which has a phosphate concentration consistently lower than this background.
3. The Parrett leaves this area with a phosphate concentration of around 1 ppm. This is very high by national standards (a healthy watercourse is around 0.05 ppm).
4. The main sources of the phosphate are Sewage Treatment Plants. None in the area have phosphate removal stages. Of these, the worst by far is Crewkerne (345065 109601). Also noted are Merriott (345157 112159) which pollutes Gould's Brook (B on map) and Hazelbury (346813 112201) which pollutes Small Brook (D on map). Collectively these appear responsible for at least 70% of the phosphate entering the river in this part of the catchment area.
5. A considerable unprocessed sewage overflow (assumed to come from Hazelbury STW) into Small Brook was noted on 3/2/22 and reported to the EA. This is shown in the photograph below. It will be further investigated.
6. No significant point sources of agricultural phosphate run-off have been noted yet this year. There is at least one industrial dairy in the catchment which leases large tracts of the area and is currently spreading slurry. This activity, if not well controlled, often generates high levels of phosphate in watercourses but none has yet been detected here. The unusually dry weather has undoubtedly helped.
7. The data have been mapped and can be accessed here.

<https://shared.xmap.cloud?map=3af82791-1b0a-430d-b033-0048ca42c03a>

¹ UKTAG, Updated Recommendations on Phosphorus Standards for Rivers, RiverBasin Management (2015-2021)



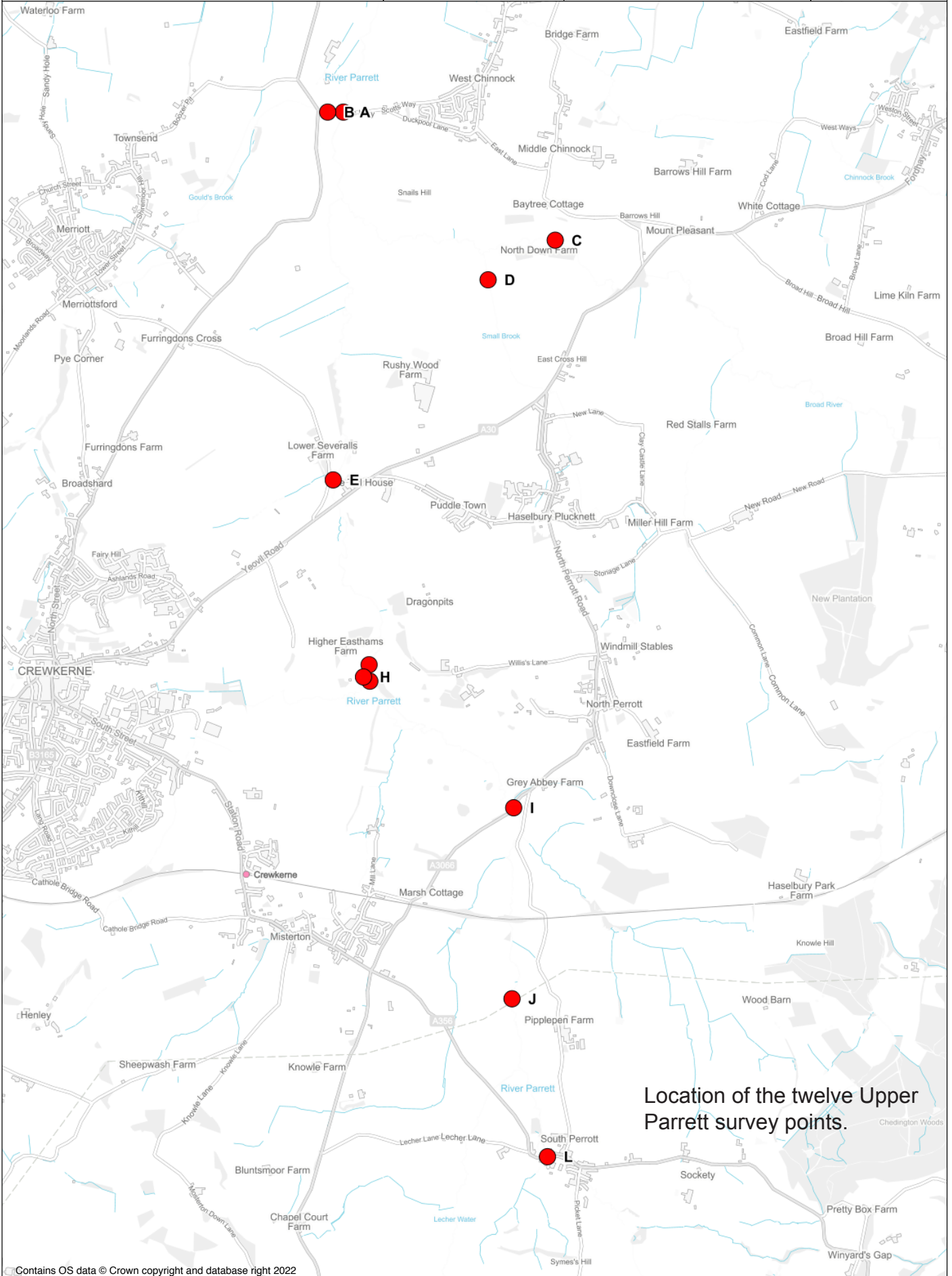
What appears to be evidence of raw sewage in Small Brook where it is crossed by the Monarchs's Way PRow (-2.7579,50.9068). 3/2/22 am. The brook had an unusually high phosphate level of 2.11 ppm

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Note. Concentrations mentioned in this report are of phosphate (PO₄) and not phosphorus (P)



Location of the twelve Upper Parrett survey points.