



Lost River Westbourne trail

Diana Clements 1 October 2023

St. Margaret's School

LONDON

GEODIVERSITY

PARTNERSHIP

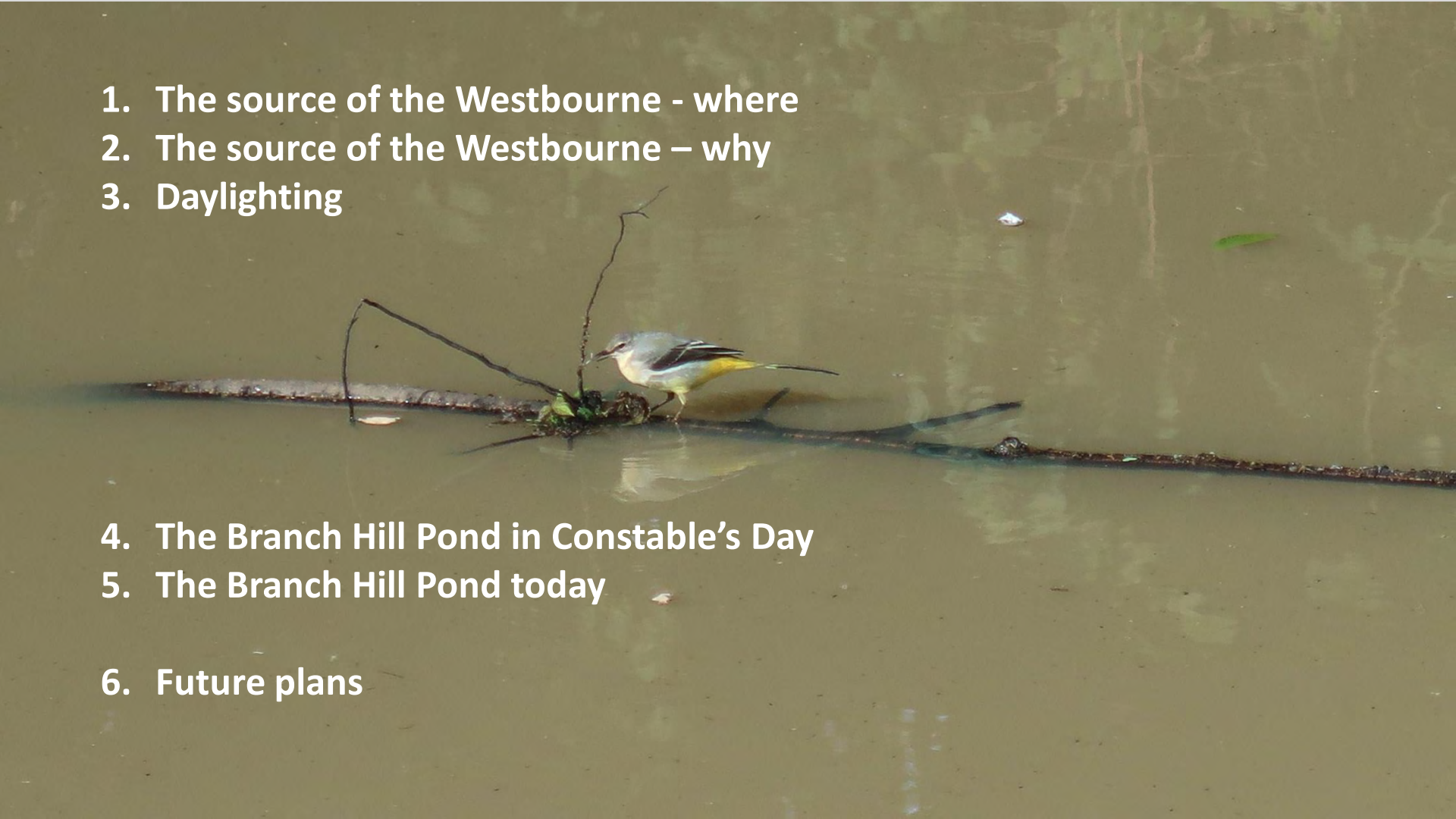


Photo Nancy Mayo

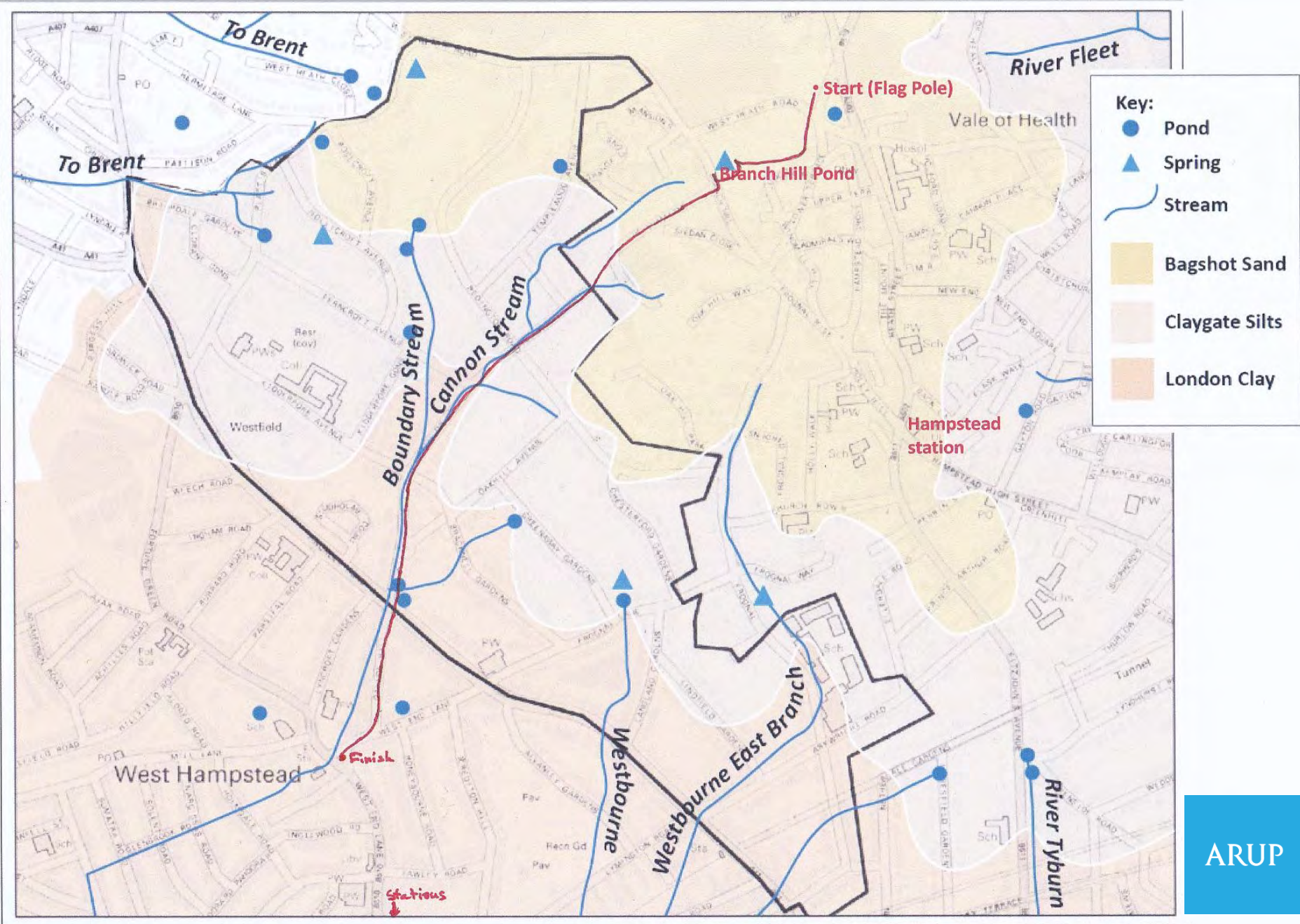
Lost River Westbourne trail

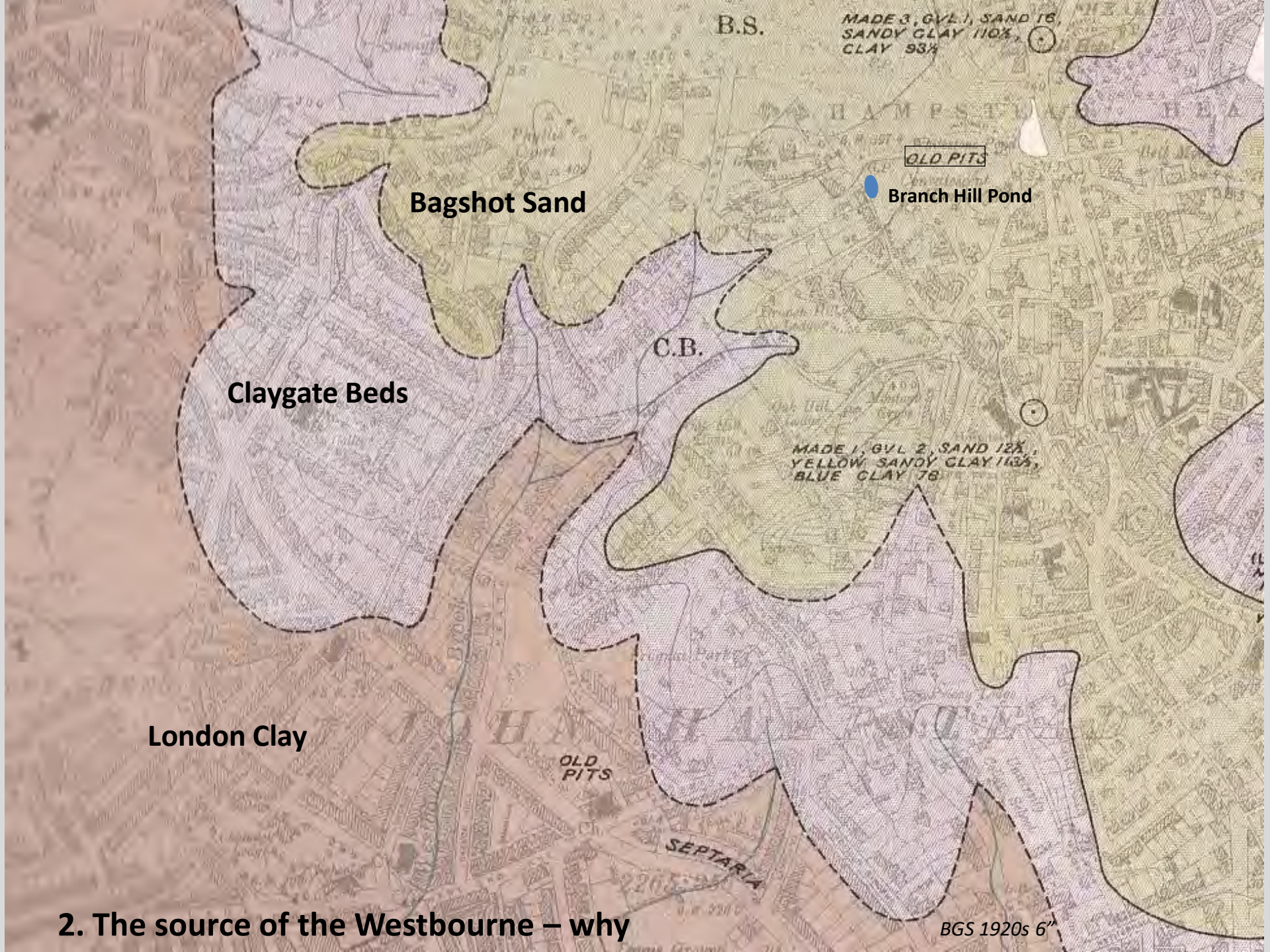
1. The source of the Westbourne - where
2. The source of the Westbourne – why
3. Daylighting

4. The Branch Hill Pond in Constable's Day
5. The Branch Hill Pond today
6. Future plans



1. The source of the Westbourne - where





Bagshot Sand

Claygate Beds

London Clay

B.S.

**MADE 3, GVL 1, SAND 16,
SANDY GLAY 110%,
CLAY 93%**

OLD PITS

Branch Hill Pond

C.B.

**MADE 1, GVL 2, SAND 12%,
YELLOW SANDY CLAY 103%,
BLUE CLAY 78%**

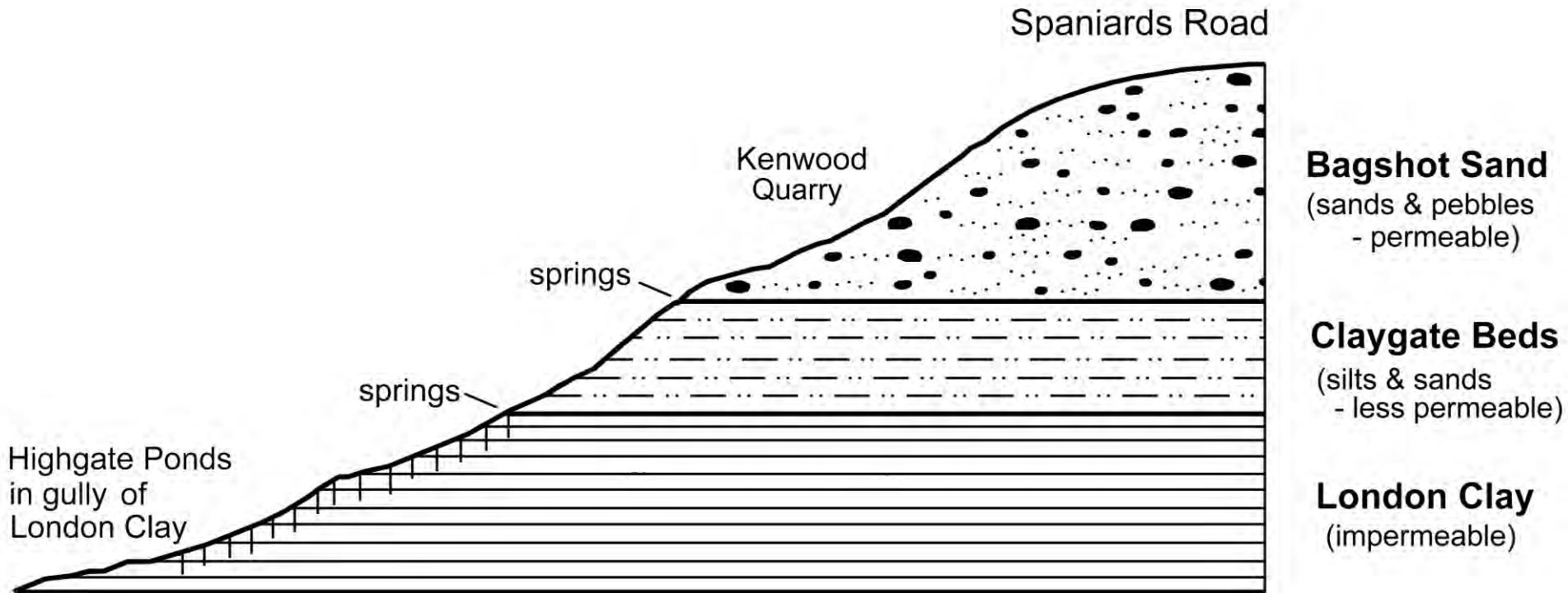
OLD PITS

SEPTARIA

BGS 1920s 6"

2. The source of the Westbourne – why

Spring lines around Hampstead Heath





SHEPHERD'S WELL IN 1820.

Chaleabeate water
Hampstead Wells
Goodison Fountain

Sweet water
Shepherd's Well 1820
Well Head, Fitzjohn's Av



Quote re Hampstead Spa water

Mr. Bliss analysed the “simple carbonated chalybeate in 1802, the following solid particles are present: oxyd of iron, muriate of magnesia, sulphate of lime, muriate of soda and silex” (Park, 1814 p.61).

The health benefits were described as:

“very beneficial in all chronic diseases which arise from languor of circulation; where there is a general debility of the system, or laxity of the solids; and in all cases where tonics and gentle stimulants are required: but great circumspection is required in its exhibition where there is any organic disease, or much febrile irritation.

“Its action upon the kidneys renders it a powerful auxiliary in cases of dysury and gravel, and in several diseases of the urinary passages.

“It is also of essential service in most cutaneous affections, particularly of lepra and the different species of psoriasis, as has been noticed by the late Dr. Wills.

Elsewhere it is written that the dose should be ‘no more than ½ - 1 pint’

“Daylighting” the stream by rainscaping in garden space, and using down-pipe disconnections

Restoration of Constable’s Branch Hill pond

Capture road and field runoff for pond to support groundwater

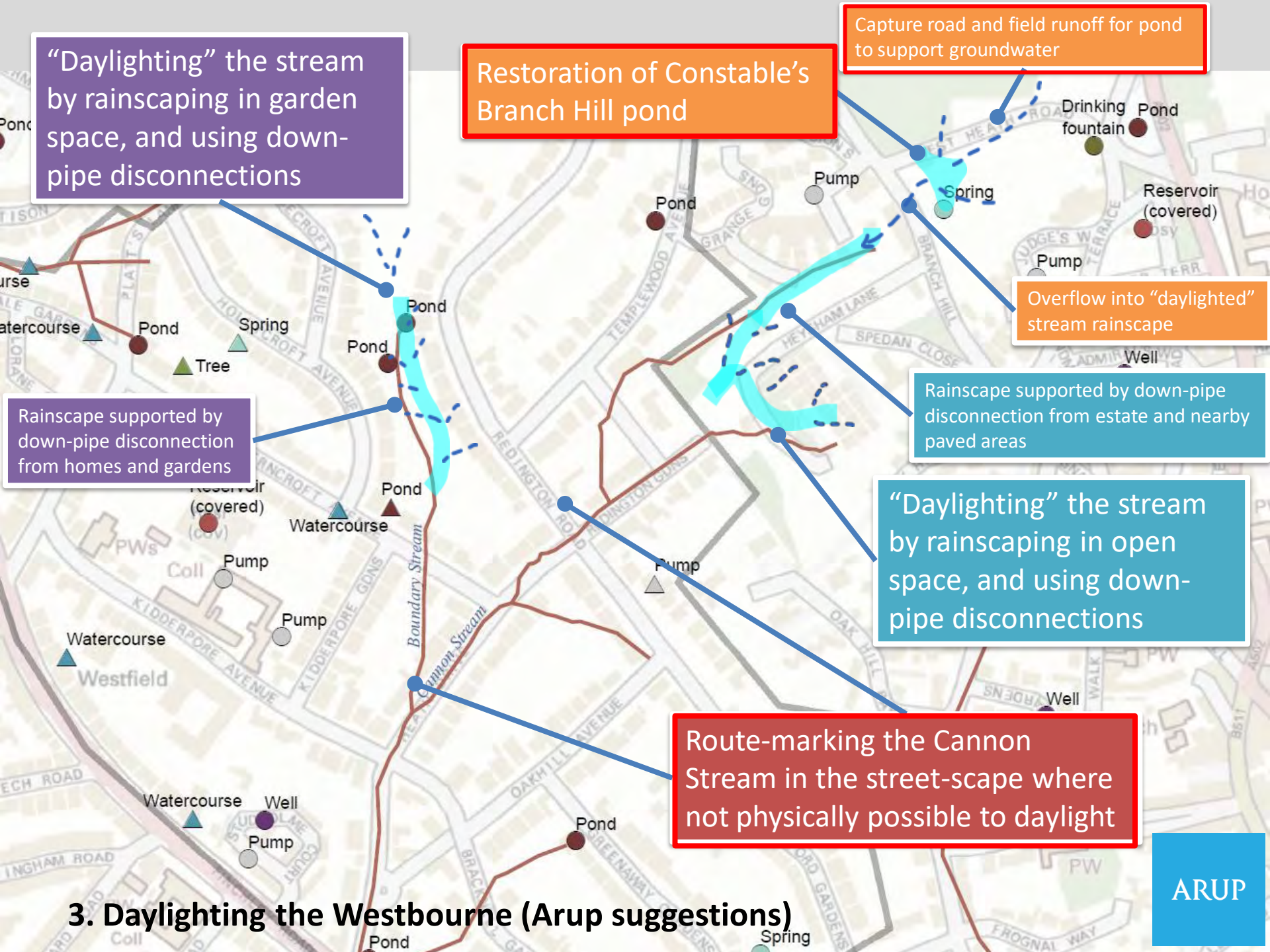
Overflow into “daylighted” stream rainscape

Rainscape supported by down-pipe disconnection from estate and nearby paved areas

“Daylighting” the stream by rainscaping in open space, and using down-pipe disconnections

Route-marking the Cannon Stream in the street-scape where not physically possible to daylight

Rainscape supported by down-pipe disconnection from homes and gardens



3. Daylighting the Westbourne (Arup suggestions)





4. Branch Hill Pond in Constable's Day

John Constable 1820-22 © Tate

www.tate.org.uk/art/artworks/constable-hampstead-heath-with-harrow-in-the-distance-n01237

5. Branch Hill Pond today, June 2023 during heat wave (dug August 2022 during heat wave)



Wide bodied
Pond Chaffer



BH10

Location of borehole Logs
at Branch Hill Pond

BH12

BH13

BH11

BH9

BH7

BH8

BH4

BH6

BH1

BH3

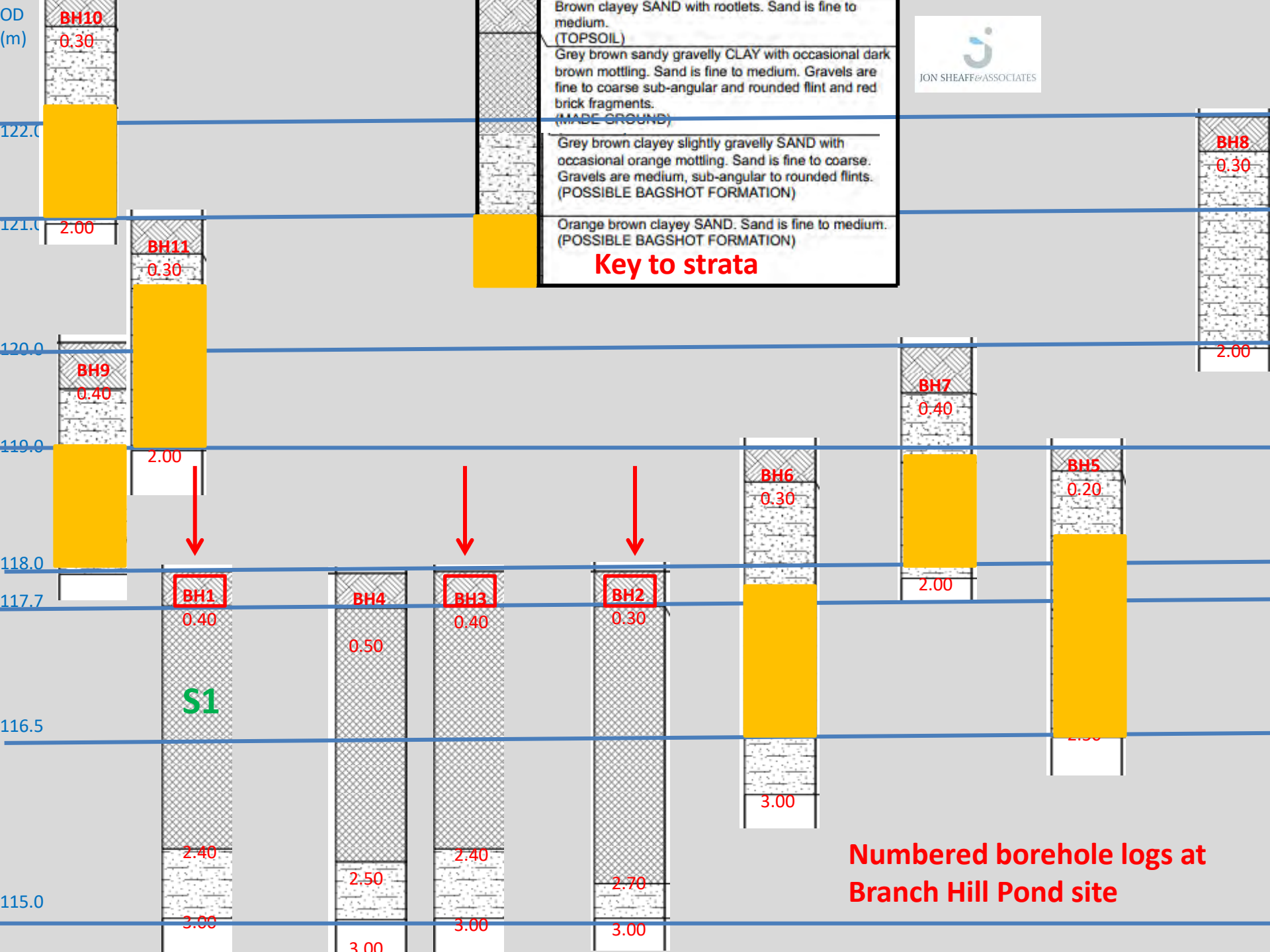
BH5

BH2

Site investigation with
location of borehole
logs

Note that the proposed
size of the pond is
reduced







Is there a spring under or close to the Branch Hill Pond?

Top surface is 118 m OD

Ponds on Sandy Heath are much the same height and are underlain by iron pan - maybe the same is true here?

Photo Diamond Geezer (internet)

6. Future Plans

Next step with the pond – a fence to keep out dogs, and planting

Dee McLean 2021

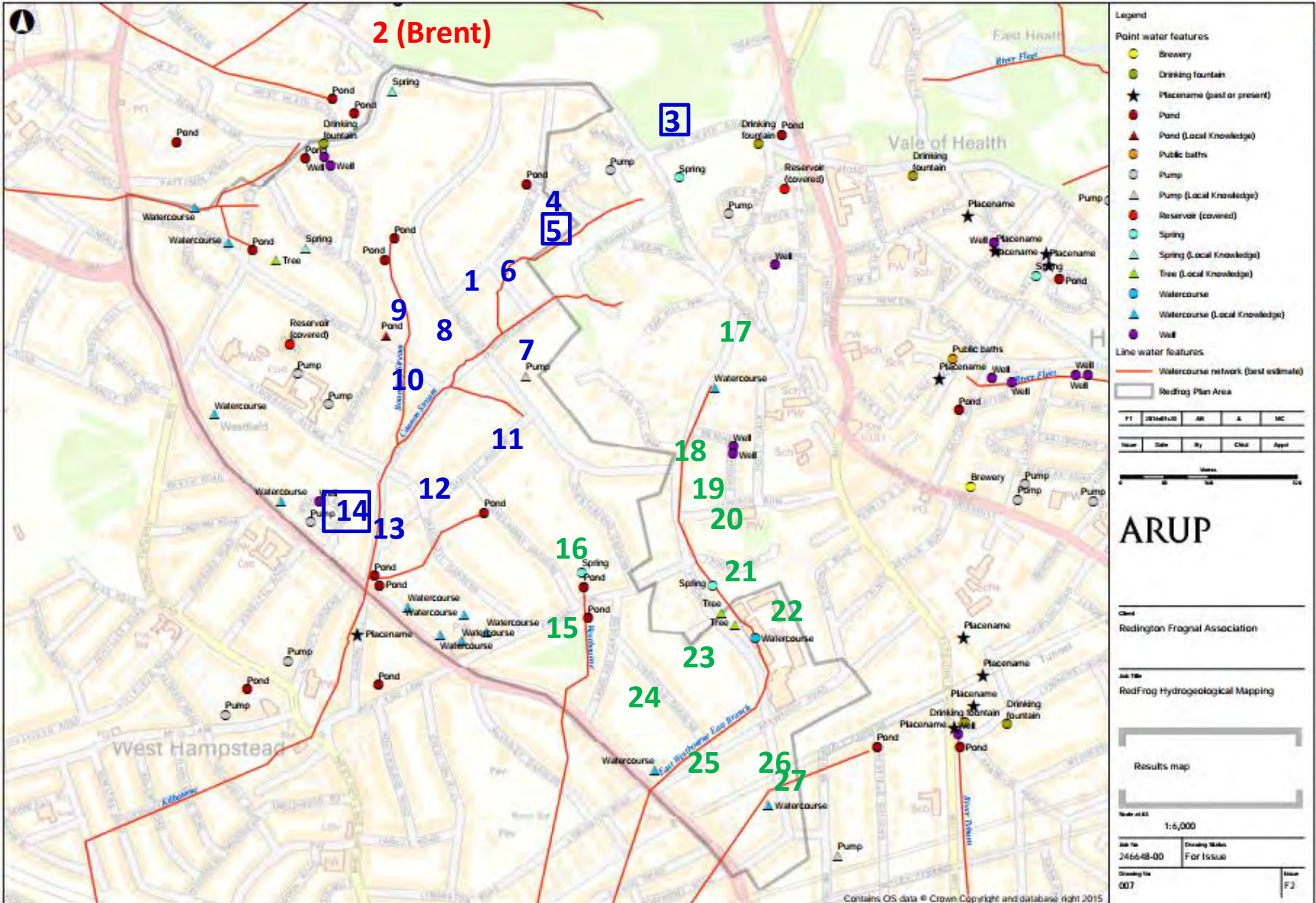


Marking the route in the RedFrog area

Glyph designed by Robin Lacey



Suggested positions of Glyphs and QR codes along the routes of the Westbourne in the RedFrog area



The River Westbourne

... from the Source to the Thames

From its source at Branch Hill Pond the Cannon Stream is joined by the Boundary Stream and several other streams in the Redington Froggnal area to form the Westbourne. Could the origin of the name because the stream (bourne) flows to the west from Hampstead Heath or from West End Lane or even Westbourne in the Paddington area?



The pond at Branch Hill



Daylighting Branch Hill Pond

It flows through Kilburn, where it is joined by a tributary also arising from lower down the Hampstead hill and possibly gathering additional water from the Spa there.



Kilburn Wells & Spa

Bayswater road is named after 'Bays Watering Hole' which was the river.



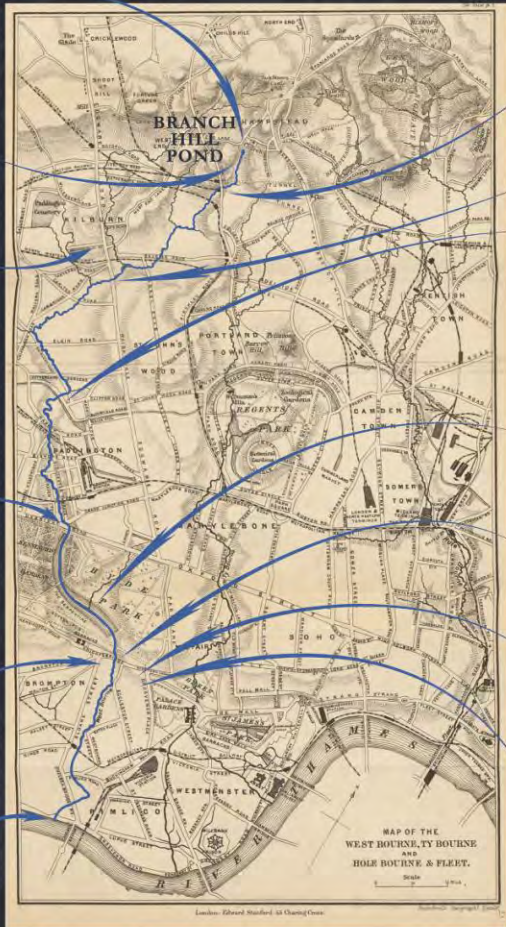
Bayswater conduit



Sloane Square tube with Westbourne pipe going over the top



Confluence with Thames



Crossing the dip in the Finchley Road



At Maida Vale it passes beneath the Grand Union Canal

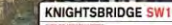
The Westbourne is commemorated by several street names in the area around Westbourne Green, between Notting Hill and Paddington.



The Serpentine



Knight's Bridge



"Water's Murmur" (Westbourne) Julian Stocks, Kinnerton Street, Knightsbridge



PONT STREET, SW1

Map of the West Bourne, Ty Bourne, and Hole Bourne & Fleet 1884 Stanfords

? Waymark the entire Westbourne



Water's Murmur by Julian Stocks



Above the tube trains in a drain at Sloane Square

Board designed by Dee McLean for exhibition



GA Festival of Geology 2023

Urban Geology walks in London

Sunday 5 November

Westbourne Source Geotrail

Led by Diana Clements Start time: 10.30 am

A walk down the Westbourne from its source at the Branch Hill Pond to West End Green looking for clues about the route and the geological influences in the landscape. The walk demonstrates how geology plays a key, but hidden rôle in the local community. Why water is where it is and the impact it had and continues to have on the lives of those who live there. In 2022 the Branch Hill Pond, frequently painted by John Constable, was reinstated and is now holding water. Start higher up the hill at the Flag Pole.



**Non-GA Members and Beginners welcome but booking is essential.
There is a charge of £5 per person per trip**

Register online via the GA website:

www.geologistsassociation.org.uk/festival.html

Thanks

Nancy Mayo of RedFrog for inviting me to be part of this project
Robin Lacey for doing much of the groundwork and designing the Glyph
Dr Adam Broadhead from Arup for his initial idea of reinstating Branch Hill Pond
Dee McLean for her wonderful boards for the exhibition



www.londongeopartnership.org.uk

