DOWN AMPNEY NEIGHBOURHOOD DEVELOPMENT PLAN ANNEXES

















June 2023 Regulation 16 Submission Plan

ANNEXE A – HISTORIC SITES IN THE PARISH OF DOWN AMPNEY



Regulation 16 Submission Plan

HISTORIC SITES IN THE PARISH OF DOWN AMPNEY

An extract from Ancient and Historical Monuments in the County of Gloucester Iron Age and Romano-British Monuments in the Gloucestershire Cotswolds, (HMSO, London, 1976)

Historic Sites in the Parish of Down Ampney

DOWN AMPNEY1

(5 miles S.E. of Cirencester)

(1) Enclosures and Linear Ditches (SU 102960), undated, show as crop-marks E. of Bean Hay Copse, 3/8 mile S.S.E. of All Saints' Church and about 270 ft. above O.D. A sub-circular enclosure 300 ft. in diameter, defined by an interrupted ditch, is intersected by a straight ditch, possibly the S.E. side of a rectilinear enclosure with an entrance on the east. A small irregular oval enclosure in the E. corner of the rectilinear enclosure has a gap in the S. side (plan below).

N.M.R., OAP SU 1095/6/327-8.

(2) Settlement and Road (SU 108959), undated, showing as crop-marks within the S. boundary of the airfield, N.W. of Gully Leaze Copse, lie about 260 ft. above O.D. The settlement covers about 4 acres and is indicated by traces of twelve or more sub-rectangular and D-shaped enclosures partly surrounded by a ditch (plan below). Adjacent on the N.E. are three or four rectangular plots, each 50 ft. wide and some 300 ft. long. The road, upon which the settlement abuts in the S.E., is defined by two pairs of side-ditches, each 40 ft. apart and of slightly differing widths, suggesting reconstruction.

N.M.R., OAP SU 1096/1/325-6; 1095/7-8; 1095/10 (infrared).



Down Ampney. (1) Enclosures and Linear Ditches. (2) Settlement and Road.

(3) Rectangular Enclosures (SU 10809665), undated, show as crop-marks within the W. boundary of the airfield, E. of Poplar Wood. An enclosure about 200 ft. long and 170 ft. wide with two gaps in the N. side is intersected almost at right angles by ditches apparently belonging to another enclosure.

N.M.R., OAP SU 1096/3/305-7.

(4) Rectilinear Enclosure (SU 124965), undated, seen with other ditches as crop-marks, 400 yds. W. of Wetstone Bridge, lies on flat ground at about 250 ft. above O.D. The E. side lies

¹ 'Down Ampney', in Ancient and Historical Monuments in the County of Gloucester Iron Age and Romano-British Monuments in the Gloucestershire Cotswolds (London, 1976), pp. 44-45. British History Online http://www.british-history.ac.uk/rchme/ancient-glos/pp44-45 [accessed 23 July 2020].

Historic Sites in the Parish of Down Ampney

partly beneath the modern road; the N. side is not traceable. There are gaps in the E. and W. sides.

C.U.A.P., OAP BW 7.



Down Ampney. (4) Enclosure.

End of article

Additional Map added to show locations



Historical Sites shown on OS Map (note: Site 1 is a scheduled ancient monument)

ANNEXE B – ANALYSIS OF TRAFFIC SURVEY



Regulation 16 Submission Plan

ANALYSIS OF TRAFFIC SURVEY

Survey carried out by

Carried out by

Gloucestershire Highways in September 2019

Analysis of Traffic Survey

1 Traffic Movements

A traffic survey was undertaken in September 2019. Sensors were placed on the road in locations shown on Figure 1.



Figure 1 – Location of Traffic Sensors

2 Average Weekday Vehicle Movements

Tables 1 and 2 show average traffic flows over a weekday from 16 to 20 September 2019. There is no reason to believe that these data are untypical of any week: schools are back; the main holiday season is over.

| Sum of Average Weekend | Column Labels Entering from Marston | Entering | Entering | All entering |
|---------------------------|---|----------|----------|--------------|
| Row Labels | Meysey | Hampton | Poulton | W) |
| 00:00:00 | 0 | 5 | 1 | 6 |
| 01:00:00 | 0 | 2 | 0 | 2 |
| 02:00:00 | 0 | 2 | 0 | 2 |
| 03:00:00 | 0 | 0 | 0 | 0 |
| 04:00:00 | 0 | 0 | 0 | 0 |
| 05:00:00 | 1 | 3 | 0 | 4 |
| 06:00:00 | 1 | 6 | 4 | 11 |
| 07:00:00 | 3 | 13 | 3 | 19 |
| 08:00:00 | 3 | 30 | 10 | 43 |
| 09:00:00 | 3 | 36 | 14 | 53 |
| 10:00:00 | 6 | 44 | 9 | 59 |
| 11:00:00 | 5 | 42 | 15 | 62 |
| 12:00:00 | 5 | 45 | 14 | 64 |
| 13:00:00 | 6 | 40 | 7 | 53 |
| 14:00:00 | 4 | 50 | 11 | 65 |
| 15:00:00 | 2 | 44 | 16 | 62 |
| 16:00:00 | 2 | 35 | 20 | 57 |
| 17:00:00 | 3 | 28 | 11 | 42 |
| 18:00:00 | 2 | 24 | 7 | 33 |
| 19:00:00 | 2 | 14 | 8 | 24 |
| 20:00:00 | 0 | 15 | 6 | 21 |
| 21:00:00 | 0 | 11 | 6 | 17 |
| 22:00:00 | 0 | 9 | 5 | 14 |
| 23:00:00 | 1 | 6 | 2 | 9 |
| Grand Total | 49 | 504 | 169 | 722 |

All Traffic Movements from "East" to West

Table 1 – Average Vehicle Numbers Westwards

| Sum of Average Weekday | Column Labels 🗾 | | | | |
|---------------------------|--------------------------|---|---|-------------------------------|------------------------------------|
| Row Labels | Entering from A419 | Leaving towards Marston Meysey | Leaving towards Meysey Hampton | Leaving towards Poulton | All leaving village (W to E) |
| 00:00:00 | 3 | 0 | -2 | 0 | -2 |
| 01:00:00 | 3 | 0 | -2 | 0 | -2 |
| 02:00:00 | 1 | 0 | 0 | 0 | 0 |
| 03:00:00 | 1 | 0 | -1 | 0 | -1 |
| 04:00:00 | 1 | 0 | -1 | 0 | -1 |
| 05:00:00 | 4 | 0 | -3 | 0 | -3 |
| 06:00:00 | 25 | -3 | -22 | -4 | -29 |
| 07:00:00 | 94 | -6 | -67 | -31 | -104 |
| 08:00:00 | 116 | -5 | -84 | -40 | -129 |
| 09:00:00 | 76 | -6 | -42 | -22 | -70 |
| 10:00:00 | 72 | -5 | -49 | -14 | -68 |
| 11:00:00 | 84 | -6 | -53 | -18 | -77 |
| 12:00:00 | 84 | -6 | -48 | -14 | -68 |
| 13:00:00 | 80 | -5 | -44 | -18 | -67 |
| 14:00:00 | 100 | -6 | -55 | -16 | -77 |
| 15:00:00 | 95 | -7 | -60 | -20 | -87 |
| 16:00:00 | 128 | -7 | -72 | -20 | -99 |
| 17:00:00 | 150 | -4 | -86 | -18 | -108 |
| 18:00:00 | 105 | -4 | -53 | -19 | -76 |
| 19:00:00 | 78 | -3 | -35 | -13 | -51 |
| 20:00:00 | 42 | -1 | -21 | -9 | -31 |
| 21:00:00 | 30 | -1 | -14 | -4 | -19 |
| 22:00:00 | 19 | 0 | -11 | -3 | -14 |
| 23:00:00 | 8 | -1 | -4 | -1 | -6 |
| Grand Total | 1399 | -76 | -829 | -284 | -1189 |

All Traffic Movements from West to "East"

The East to West and West to East annotation has been chosen to represent the approximate flow through the main part of the village. Negative values are movements out of the village and positive ones are into the village.

Looking at the weekday west to east traffic, it is evident there are two peaks entering from the A419, one between 7.00 and 9.00 (total 210) and the second between 16.00 and 19.00 (total 461); there is a minor peak between 14.00 and 15.00 (total 100); for the remainder of the middle of the day, the average movement is about 80 vehicles per hour. Evening traffic averages some 40 vehicles per hour. Leaving the village from all routes "east" (this includes towards Poulton), there are the same two peaks, one from 7.00 to 9.00 (total 233) and the second from 16.00 to 19.00 (total 283). Average middle-of-the-day movement is just over 70 vehicles per hour. Evening traffic averages nearly 30 vehicles per hour.

Table 2 Average Vehicle Numbers Eastwards

Analysis of Traffic Survey

Analysing the average flows the following main assumption has been made:

• There are few destinations within the village for people not living in Down Ampney – the School, the Shop, the Village Hall, the Football Club, and the Church are the main ones where a visitor might enter and leave the village along the same route, but on the whole traffic entering the village is either villagers returning home or non-villagers exiting the village in the opposite direction. To cater for this an assumption has been made that 5% of the incoming traffic from each direction is a trip that ends in Down Ampney. This leads to the total of non-resident trips into the village being 131 (61 from the "East" and 70 from the "West"). This appears reasonable.

| Sum of Average Weekday | Column Labels 🗾 | | | |
|---------------------------|--|---|--------------------------|---|
| Row Labels 🗾 | All entering village (E to W) | Assume 5% from "east" remains in village | Entering from A419 | Assume 5% from west remains in village |
| 00:00:00 | 2 | 0 | 3 | 0 |
| 01:00:00 | 1 | 0 | 3 | 0 |
| 02:00:00 | 1 | 0 | 1 | 0 |
| 03:00:00 | 0 | 0 | 1 | 0 |
| 04:00:00 | 3 | 0 | 1 | 0 |
| 05:00:00 | 10 | 1 | 4 | 0 |
| 06:00:00 | 37 | 2 | 25 | 1 |
| 07:00:00 | 96 | 5 | 94 | 5 |
| 08:00:00 | 126 | 6 | 116 | 6 |
| 09:00:00 | 72 | 4 | 76 | 4 |
| 10:00:00 | 67 | 3 | 72 | 4 |
| 11:00:00 | 70 | 4 | 84 | 4 |
| 12:00:00 | 71 | 4 | 84 | 4 |
| 13:00:00 | 57 | 3 | 80 | 4 |
| 14:00:00 | 78 | 4 | 100 | 5 |
| 15:00:00 | 96 | 5 | 95 | 5 |
| 16:00:00 | 135 | 7 | 128 | 6 |
| 17:00:00 | 103 | 5 | 150 | 8 |
| 18:00:00 | 61 | 3 | 105 | 5 |
| 19:00:00 | 38 | 2 | 78 | 4 |
| 20:00:00 | 22 | 1 | 42 | 2 |
| 21:00:00 | 16 | 1 | 30 | 2 |
| 22:00:00 | 17 | 1 | 19 | 1 |
| 23:00:00 | 8 | 0 | 8 | 0 |
| Grand Total | 1187 | 61 | 1399 | 70 |

Table 3 Trips from Outside assumed to end in Down Ampney

Further analysis leads to the number of trips generated from within the village and also to the number of through trips of passing traffic. This is shown in Table 4.

| Sum of Average | Column | | | | | |
|----------------|-----------|-----------|------------------|------------------|---------------|--------------|
| Weekday | Labels 🗾 | | | | | |
| | | | | | | |
| | | | | | | |
| | Trips | Trips | T -1-14-1 | | | T-1-1 |
| | westwards | eastwards | lotal trips | Thusungh traffic | | Iotal |
| Pow Jahols | from DA | from DA | from DA | mrougn trame | nrougn trainc | troffic |
| | | 110111 DA | | westwarus -1 | eastwarus | |
| 01:00:00 | -1 | 0 | -1 | -1 | -2 | -3 |
| 02:00:00 | 0 | 0 | 0 | -1 | -2 | -1 |
| 03:00:00 | 0 | 0 | 0 | 0 | -1 | -1 |
| 04:00:00 | -2 | 0 | -2 | -3 | -1 | -4 |
| 05:00:00 | -8 | 0 | -8 | -9 | -3 | -12 |
| 06:00:00 | -12 | -5 | -17 | -35 | -24 | -59 |
| 07:00:00 | -39 | -15 | -54 | -91 | -89 | -180 |
| 08:00:00 | -40 | -19 | -59 | -120 | -110 | -230 |
| 09:00:00 | -26 | 0 | -26 | -68 | -70 | -138 |
| 10:00:00 | -16 | 0 | -16 | -64 | -68 | -132 |
| 11:00:00 | -18 | 0 | -18 | -66 | -77 | -143 |
| 12:00:00 | -15 | 0 | -15 | -67 | -68 | -135 |
| 13:00:00 | -12 | 0 | -12 | -54 | -67 | -121 |
| 14:00:00 | -7 | 0 | -7 | -74 | -77 | -151 |
| 15:00:00 | -22 | 0 | -22 | -91 | -87 | -178 |
| 16:00:00 | -16 | 0 | -16 | -128 | -99 | -227 |
| 17:00:00 | -8 | 0 | -8 | -98 | -108 | -206 |
| 18:00:00 | -4 | 0 | -4 | -58 | -76 | -134 |
| 19:00:00 | -12 | 0 | -12 | -36 | -51 | -87 |
| 20:00:00 | -9 | 0 | -9 | -21 | -31 | -52 |
| 21:00:00 | -1 | 0 | -1 | -15 | -19 | -34 |
| 22:00:00 | -1 | 0 | -1 | -16 | -14 | -30 |
| 23:00:00 | 0 | 0 | 0 | -7 | -6 | -13 |
| Grand Total | -269 | -39 | -308 | -1124 | -1150 | -2274 |

Table 4 Average Weekday Trips

3 Average Weekend Vehicle Movements

Tables 5 and 6 show average traffic flows over the weekend of 21 and 22 September 2019. The data show a much more even spread of vehicle movements over the day than the weekday figures. This is hardly surprising.

Analysis of Traffic Survey

| Sum of Average | Column | | | | |
|----------------|---------|-------------|----------|---------------|---------|
| weekend | Labels | | | | |
| | from | Entoring | Entoring | All optoring | Lowing |
| | Marston | from Meysey | from | village (E to | towards |
| Row Labels | Meysey | Hampton | Poulton | W) | A419 |
| 00:00:00 | 0 | 5 | 1 | 6 | -5 |
| 01:00:00 | 0 | 2 | 0 | 2 | -6 |
| 02:00:00 | 0 | 2 | 0 | 2 | -4 |
| 03:00:00 | 0 | 0 | 0 | 0 | 0 |
| 04:00:00 | 0 | 0 | 0 | 0 | -1 |
| 05:00:00 | 1 | 3 | 0 | 4 | -4 |
| 06:00:00 | 1 | 6 | 4 | 11 | -10 |
| 07:00:00 | 3 | 13 | 3 | 19 | -31 |
| 08:00:00 | 3 | 30 | 10 | 43 | -59 |
| 09:00:00 | 3 | 36 | 14 | 53 | -82 |
| 10:00:00 | 6 | 44 | 9 | 59 | -87 |
| 11:00:00 | 5 | 42 | 15 | 62 | -71 |
| 12:00:00 | 5 | 45 | 14 | 64 | -85 |
| 13:00:00 | 6 | 40 | 7 | 53 | -67 |
| 14:00:00 | 4 | 50 | 11 | 65 | -72 |
| 15:00:00 | 2 | 44 | 16 | 62 | -70 |
| 16:00:00 | 2 | 35 | 20 | 57 | -68 |
| 17:00:00 | 3 | 28 | 11 | 42 | -49 |
| 18:00:00 | 2 | 24 | 7 | 33 | -42 |
| 19:00:00 | 2 | 14 | 8 | 24 | -30 |
| 20:00:00 | 0 | 15 | 6 | 21 | -21 |
| 21:00:00 | 0 | 11 | 6 | 17 | -18 |
| 22:00:00 | 0 | 9 | 5 | 14 | -16 |
| 23:00:00 | 1 | 6 | 2 | 9 | -11 |
| Consul Table | 10 | 504 | 100 | | 000 |

All Traffic Movements from "East" to West

All Traffic Movements from West to "East"

| Sum of Average Weekend | Column Labels 🗾 | | | | |
|---------------------------|--------------------|-------------------------------|------------------------------|--------------------|------------------------------|
| | Entering from | Leaving towards Marston | Leaving towards Meysey | Leaving towards | All leaving village (W to |
| Row Labels 🛛 🞽 | A419 | Meysey | Hampton | Poulton | E) |
| 00:00:00 | 8 | 0 | -5 | -2 | -7 |
| 01:00:00 | 5 | 0 | -3 | -1 | -4 |
| 02:00:00 | 5 | 0 | -2 | 0 | -2 |
| 03:00:00 | 1 | 0 | -1 | 0 | -1 |
| 04:00:00 | 1 | 0 | -2 | 0 | -2 |
| 05:00:00 | 3 | 0 | -4 | 0 | -4 |
| 06:00:00 | 6 | 0 | -7 | -1 | -8 |
| 07:00:00 | 20 | -2 | -12 | -7 | -21 |
| 08:00:00 | 34 | -4 | -20 | -12 | -36 |
| 09:00:00 | 58 | -3 | -33 | -15 | -51 |
| 10:00:00 | 79 | -5 | -50 | -13 | -68 |
| 11:00:00 | 87 | -6 | -55 | -15 | -76 |
| 12:00:00 | 100 | -7 | -51 | -17 | -75 |
| 13:00:00 | 95 | -5 | -51 | -13 | -69 |
| 14:00:00 | 76 | -7 | -35 | -22 | -64 |
| 15:00:00 | 77 | -2 | -37 | -13 | -52 |
| 16:00:00 | 78 | -2 | -36 | -14 | -52 |
| 17:00:00 | 80 | -2 | -41 | -11 | -54 |
| 18:00:00 | 52 | -3 | -31 | -9 | -43 |
| 19:00:00 | 46 | 0 | -25 | -11 | -36 |
| 20:00:00 | 22 | 0 | -15 | -9 | -24 |
| 21:00:00 | 19 | -2 | -8 | -3 | -13 |
| 22:00:00 | 17 | -1 | -9 | -3 | -13 |
| 23:00:00 | 9 | 0 | -3 | -1 | -4 |
| Grand Total | 978 | -51 | -536 | -192 | -779 |

Table 5 Average Vehicle Numbers Westwards

Table 6 Average Vehicle Numbers Eastwards

An identical analysis has been carried out on the average weekend figures, except that it is likely that more externally generated trips end in Down Ampney from people visiting the Tennis Club, Village Hall and general social visiting; the figure has been set at 10% (Table 7).

| Weekend | Labels All entering village (E | Assume 10% from "east" remains in | Entering from | Assume 10% from west remains in |
|------------|---|---|------------------|---------------------------------------|
| Row Labels | to W) | village | A419 | village |
| 00:00:00 | 0 | 1 | 8 | 1 |
| 01:00:00 | 2 | 0 | 2 | 1 |
| 02:00:00 | 2 | 0 | 3 | 1 |
| 03:00:00 | 0 | 0 | 1 | 0 |
| 04:00:00 | 0 | 0 | 1 | 0 |
| 05:00:00 | 11 | 1 | 6 | 1 |
| 07:00:00 | 10 | 2 | 20 | 2 |
| 08:00:00 | 43 | 4 | 20 | 2 |
| 09:00:00 | 53 | 5 | 58 | 6 |
| 10:00:00 | 59 | 6 | 79 | 8 |
| 11:00:00 | 62 | 6 | 87 | 9 |
| 12:00:00 | 64 | 6 | 100 | 10 |
| 13:00:00 | 53 | 5 | 95 | 10 |
| 14:00:00 | 65 | 7 | 76 | 8 |
| 15:00:00 | 62 | 6 | 77 | 8 |
| 16:00:00 | 57 | 6 | 78 | 8 |
| 17:00:00 | 42 | 4 | 80 | 8 |
| 18:00:00 | 33 | 3 | 52 | 5 |
| 19:00:00 | 24 | 2 | 46 | 5 |
| 20:00:00 | 21 | 2 | 22 | 2 |
| 21:00:00 | 17 | 2 | 19 | 2 |
| 22:00:00 | 14 | 1 | 17 | 2 |
| 23:00:00 | 9 | 1 | 9 | 1 |

Table 7 Trips from Outside assumed to end in Down Ampney

| This leads to the figures for | trips at the weekend | shown in Table 7. |
|-------------------------------|----------------------|-------------------|
|-------------------------------|----------------------|-------------------|

| Sum of Average Weekend | Column | | | | | |
|---------------------------|-----------------------------------|-----------------------------------|----------------------------|-----------------|-----------------|------------------|
| Weekenu | | | | | | |
| | Trips westwards originating | Trips eastwards originating | Total trips originating | Through traffic | Through traffic | Total through |
| Row Labels | from DA | from DA | from DA | westwards | eastwards | traffic |
| 00:00:00 | 0 | 0 | 0 | -5 | -7 | -12 |
| 01:00:00 | -4 3 | 0 | -4 | -2 | -4 | -0 |
| 03:00:00 | -2 | 0 | -2 | -2 | -2 | -4 |
| 04:00:00 | -1 | -1 | -2 | 0 | -1 | -1 |
| 05:00:00 | 0 | -1 | -1 | -4 | -3 | -7 |
| 06:00:00 | 0 | -3 | -3 | -10 | -5 | -15 |
| 07:00:00 | -14 | -3 | -17 | -17 | -18 | -35 |
| 08:00:00 | -20 | -5 | -25 | -39 | -31 | -70 |
| 09:00:00 | -34 | 0 | -34 | -48 | -51 | -99 |
| 10:00:00 | -34 | 0 | -34 | -53 | -68 | -121 |
| 11:00:00 | -15 | 0 | -15 | -56 | -76 | -132 |
| 12:00:00 | -27 | 0 | -27 | -58 | -75 | -133 |
| 13:00:00 | -19 | 0 | -19 | -48 | -69 | -117 |
| 14:00:00 | -14 | 0 | -14 | -58 | -64 | -122 |
| 15:00:00 | -14 | 0 | -14 | -56 | -52 | -108 |
| 16:00:00 | -17 | 0 | -17 | -51 | -52 | -103 |
| 17:00:00 | -11 | 0 | -11 | -38 | -54 | -92 |
| 18:00:00 | -12 | 0 | -12 | -30 | -43 | -73 |
| 19:00:00 | -8 | 0 | -8 | -22 | -36 | -58 |
| 20:00:00 | -2 | -4 | -6 | -19 | -20 | -39 |
| 21:00:00 | -3 | 0 | -3 | -15 | -13 | -28 |
| 22:00:00 | -3 | 0 | -3 | -13 | -13 | -26 |
| Crand Total | -3 | 17 | -3 | -8 | -4 | -12 |
| | -257 | -1/ | -2/4 | -052 | -/62 | -1414 |

Table 8 Average Weekend Trips

4 Conclusion

The majority of the vehicle movements in Down Ampney arise from through traffic; nearly 2300 vehicles per day for weekdays and 1400 vehicles per day at weekends. Vehicle movements originating in Down Ampney account for just over 300 vehicles per day for weekdays and fewer than 275 vehicles per day for weekends.

Andrew Scarth CEng FICE November 2019

ANNEXE C – SURFACE WATER DRAINAGE SURVEY APRIL TO JUNE 2020

(with amendments and additions to February 2021)



Regulation 16 Submission Plan

SURFACE WATER DRAINAGE SURVEY APRIL TO JUNE 2020 (with amendments and additions to February 2021)

Carried out by

Andrew Scarth CEng FICE

SURFACE WATER DRAINAGE SURVEY APRIL TO JUNE 2020 (with amendments and additions to February 2021)

Carried out by

Andrew Scarth CEng FICE

| Revision History | | | | |
|------------------|---------------------|--------------------------|--|--|
| Revision | Date | Description | | |
| 1 | 25 July 2010 | First Issue | | |
| 2 | 22 December 2020 | Amendment to Drain B | | |
| 3 | 30 January 2021 | Additions to west end. | | |
| 4 | 11 February 2021 | Survey added | | |
| 5 | 8 April 2021 | Minor corrections | | |
| 6 | 5 May 2021 | Paragraph 7.1 amended. | | |
| 7 | November 2022 | Regulation 16 Submission | | |

While every effort has been made to ensure the accuracy of this report, the author accepts no responsibility or liability for any use that is made of this document.

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1 Background

In April and May 2020 the author carried out a walk round survey of the ditches and drains surrounding the village of Down Ampney. This paper indicates the results. A location plan of the drains and ditches is shown overleaf.

2 Drain A

Drain A is the main outlet from the northern end of Drain B as well as the water from Linden Lea and, it is assumed, Broadleaze via the 1050 mm diameter pipe and Drain C. It should be noted that Drain C flows northwards and not southwards as shown on the base mapping.

Photograph 1 shows Drain A from the pipe under Charlham Lane track looking west. Some overgrown vegetation is evident.



Photograph 1 - Drain A



3 Drain B

Drain B1 runs beside the Charlham Lane track. It flows northwards past its junction with Drain C to Drain A flowing under the track via a pipe. Drain B2 flows southward to a headwall and 300 mm diameter pipe next to 1 Suffolk Place. From there it is assumed to join the highway drainage system which eventually outfalls into Poulton Brook just to the west of the village. It is not clear whether there is a pipe connecting Drain B1 to Drain B2.

At the time of writing the Drain B1 is blocked between its junction with Drain C and its junction with Drain A. The drain and the obstruction can be seen in Photograph 2.



Photograph 2 - Drain B1 looking south showing obstruction

The junction with Drain C is shown in photograph 3. It is noticeable that even after a stretch of dry weather water is flowing from Drain C. This is noted later in the next section.



Photograph 3 - Drain C and Drain B1 junction

4 Drain C

Drain C runs northwards from the end of Suffolk Place, picking up the 1050 mm pipe from

Linden Lea before turning at a right angle to join Drain B1. Photograph 4 is taken at the bend

There is a manhole at the junction with the pipe leading from Linden Lea. This is shown in Photograph 5. At the time of writing the manhole cover and frame were displaced and there appears to be some damage within the manhole (Photograph 5a).

Drain C runs through a heavily wooded corridor which can be seen in Photographs 4 and 6.



Photograph 4 - Drain C at the right angle bend





Photograph 5a – Inside the manhole

The water flowing at the junction between Drains C and B1 mentioned in the last section is coming from the pipe from Linden Lea. Water could seen flowing from it. This part of the drain is very overgrown.

Photograph 5 - Manhole

Photograph 6 is taken from further upstream near the start of Drain C at the end of Suffolk Place.



Photograph 6 - Drain C looking South

5 **Drain D**

Drain D runs along the south side of Duke's Field to a pipe under Oak Road and thence to Drain E. The drain appears to be in reasonable condition.

6 **Drain E**

Drain E is the main recipient of water from the east of the village from about the war memorial eastwards taking in what will be the new development at Broadway Farm and as far as Peartree Cottage. This water is taken by the highway drains to a manhole opposite Little Court to the back road to Castle Hill Farm and the road between Kempsford and the A419, and thence across the field to the south to Drain E. It is thought that the pipe is a 9" diameter clay pipe.

Photograph 7 is the start of Drain E from where the pipe joining Drain D to it passes under Oak Road.



Photograph 8 - The point where the 9' pipe joins Drain E

Photograph 8 is where the 9" pipe mentioned above joins the Drain E. Drain E is very Photograph 9 - The headwall of the pipe overgrown but after clearing the area it is



Photograph 7 - Drain E Looking back to Oak Road



joining Drain E after clearing

possible to see a dry-stone headwall (Photograph 9). It was not possible to see the the pipe and confirm that it is 9" diameter pipe (see also the section on Pipe B).

Drain E terminates at the woodland of Little Hook near the north-east of the old airfield. This area is within a groundwater Source Protection Zone 1 designated by the Environment Agency for water resources.





7 Pipe A (West of Village)

As was mentioned earlier under section 3 on Drain B the bottom end of Drain B2 and the highway drainage from Chestnut Close, Suffolk Place and the west end of Main Street outfalls into Poulton Brook (see Photograph 10). It is worth noting that water is flowing from the outfall despite there having been no rain for several weeks at the time of Photograph 10. It was noted that Poulton Brook is overgrown at this location and downstream to its confluence with Ampney Brook. From observation the outfall is a 12" pipe. The basic slope on the pipework must be in the region of 1 in 200; applying the Manning formula the maximum flow rate should be about 60 litres/sec.



Photograph 10 - Highway drain outfall into Poulton Brook

7.1 **Observed Problem**

In times of heavy rainfall Poulton Brook runs bank full and standing water is observable from the Red House eastwards as far as Charlham Lane. On 30th January 2021 water could be seen bubbling from the manhole at the bottom of Charlham Lane (see Photograph 11). The head difference between this standing water and the water in Poulton Brook when this photograph was taken, however, would still be in the region of 0.5 metres (See next paragraph) therefore the flow rate should be nearly 40 litres/sec. This was clearly not the case when Photograph 11 was taken. A number of the gullies were not taking an appreciable quantity of water. The conclusion can Photograph 11 - The end of Charlham only be that the road drainage pipes were blocked or



Lane (31/01/2021)

restricted on that date. Cleaning and jetting was

carried out at the beginning of February 2021. This may have solved the problem.

7.2 **Gully Survey**

A level survey was undertaken by the author on 10 February 2021 to ascertain the relative levels of the gully gratings and Poulton Brook where the road drainage outfalls. The information is given below.





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The minimum height difference between the lowest gully grating and the underside of the bridge at Poulton Brook is 0.3 metres. The author (resident in the village for 40 years) has never seen Poulton Brook this full even in the storm of July 2007. A realistic maximum would be 0.5 metre difference. This is still quite small but should be enough to prevent ponding between the Red House and the bottom of Charlham Lane, provided that the pipes are cleaned and jetted regularly and not just after a storm event when it is too late.

8 Pipe B (East of Village)

Pipe B is apparently a 9" clay pipe. The fall on the pipe is unlikely to be greater than 1 in 500. The flow rate calculated from the Manning formula is less than 20 litres/sec. As noted under the section on Drain E it was not possible to positively identify the size of the pipe because the outfall is a dry-stone construction with only a slit exit. Photograph 12 is an attempt to see behind the dry-stone headwall.

9 Conclusion

The drainage paths for surface water around Down Ampney are reasonably easy to follow. There are three main outlet points: two into Poulton Brook to the west and one soakaway at Little Hook to the east.



Photograph 12 - Inside the dry-stone outfall

The highway drains accept water from non-road locations.

There is doubt that the full length of the 9" pipe starting opposite Littlecourt flowing southwards is either well-maintained or has the capacity for storm flows.

The road drainage to the west of the village outfalling in Poulton Brook is either partially blocked or inadequate for the flows experienced on a relatively frequent occurrence.

The highways agency responsible should maintain both these areas of pipework.

Many of the ditches forming the main drains are poorly maintained. The riparian owners should be encouraged to carry out their duties of maintenance under the Land Drainage Act 1991.

10 Further Work

It proved impossible to ascertain the destination of drainage from Broadleaze, although the assumption was that it connects with the Linden Lea drain.

A precise definition of who is responsible for each part of the drainage system would be extremely useful to all parties. The list is likely to include: Gloucestershire Highways Authority, Cotswold District Council, Thames Water Utilities Ltd, Farmcare Ltd, and the Co-operative Wholesale Society, with perhaps the Environment Agency also taking an interest.

DOWN AMPNEY NEIGHBOURHOOD DEVELOPMENT PLAN







June 2023

Regulation 16 Submission Plan