

# **GYPSY MOTH RESPONSE – HAMILTON**

## **Aerial Spray Map – Reasoning**

**8 July 2003**

**1. Treat the trapped moth and associated row of oak trees as the epicentre**

- No further activity has been found so there is no other data to work from.

**2. Extend margins to a minimum of 1.6km from the epicentre, except where there is farmland**

- The captured moth was in good condition when found indicating it had flown only a short distance.
- It is known that gypsy moth males seldom fly further than 800 metres.
- Taken that moths could have flown 800 metres in any direction then a minimum boundary of 1.6km will encircle a possible population.
- Include a 200-metre spray buffer for drift and deposition.

**3. Keep the western boundaries away from farmland**

- West and south of the trapped moth are areas of peat farmland.
- Vegetation is sparse and there is no value seen in spraying grassland.

**4. Location of main host vegetation in Hamilton**

- The majority of host vegetation (oaks, willows, poplars) are located to the east and north.
- Extend the boundaries where there are large areas of host vegetation.

**5. Need to spray larger area as trapping programme was limited**

- In the United States, for example, surveillance trap grids are much more robust.
- 17 traps were placed in Hamilton over 2002/03. The moth could have flown past the other traps.
- If it was certain that the moth emerged from the trap area then could justify smaller area.
- Need to be cautious and target larger area.

**6. Include industrial area and devanning sites**

- It is more than likely that gypsy moth arrived at an industrial site.
- The spray area includes all main devanning sites, used car yards and the industrial area.

**7. Extend boundaries out to North and East**

- Wind can disperse larvae and moths.
- Main wind direction would have led to north and east dispersal.
- Traps were not placed out this direction but targeted industrial sites.
- There are a large number of host trees in a gully out to 3km from the trapped moth.