City of London Corporation Committee Report

Committee(s): Hampstead Heath Consultative Committee (for Discussion) Hampstead Heath, Highgate Wood, and Queen's Park Committee (for Decision)	Dated: 14 January 2025 4 February 2025
Subject: Hampstead Heath dog swimming and pesticide introduction	**Public report:** For Discussion
This proposal: • **delivers Corporate Plan 2024-29 outcomes**	-Diverse engaged communities -Leading sustainable environment -Vibrant thriving destination -Providing excellent services -Flourishing public spaces
Does this proposal require extra revenue and/or capital spending?	No
If so, how much?	£0
What is the source of Funding?	N/A
Has this Funding Source been agreed with the Chamberlain's Department?	N/A
Report of:	Executive Director, Environment Department
Report author:	Adrian Brooker, Senior Ecologist, North London Open Spaces

Summary

This report provides Hampstead Heath Consultative Committee Members with a summary of a recent scientific study undertaken and its subsequent publication, supported by North London Open Spaces, focused on the link between dog swimming and pesticide introduction into Hampstead Heath ponds.

The study identifies that many flea and tick treatments applied to dogs contain pesticides and that dog swimming is the likely source of chemical contamination into

ponds in which dog swimming occurs. The study also found that dog owners were generally unaware of the environmental risks associated with the flea and tick treatments they used on their pets. The levels of chemicals found could be harmful to pond life.

Potential options are outlined which could reduce the impact of these pesticides to Hampstead Heath ponds.

Recommendation(s)

Members are asked to:

- Note the report and make representations to the Grand Committee about the potential future options which, in the opinion of the Consultative Committee, affects or are likely to affect the Heath lands.

Main Report

Background

1. There are 13 larger ponds located on the City of London Corporation-managed area of Hampstead Heath. North London Open Spaces (NLOS) has designated areas in three of these ponds for dog swimming.

2. Dog walking is a much-loved and well-established activity on Hampstead Heath that provides health benefits to both the dog and their owners. Many dog walkers bring their dogs to the ponds where dog swimming is currently permitted.

3. Various veterinary products are used to protect pets from fleas and ticks. Many of these products are classed as insecticides, which are pesticides that target insects. However not all owners use these products and there is considerable variation in the type of product used.

4. The chemicals used in flea and tick treatments have been shown to have a detrimental impact on invertebrate species that are not specifically targeted by them (i.e. fleas and ticks).

5. High concentrations of these chemicals are already associated with both treated and untreated wastewater sources in London waterways.

Previous examination of Heath ponds

6. It was hypothesised that dogs may be introducing chemicals associated with flea treatment products to Hampstead Heath ponds through dog swimming.

7. In partnership with the Heath and Hampstead Society, an initial investigation was undertaken in 2021 to determine the possible presence of these chemicals in the Hampstead Heath ponds.

8. Samples taken from two of the most frequented dog swimming ponds revealed the presence of chemicals (Imidacloprid and Fipronil) at levels which could be harmful to aquatic life. Both were banned in Britain for agricultural use in 2018 largely due to their detrimental impacts on bees.

9. It was unclear whether these chemicals were widespread across Hampstead Heath waterbodies and whether they were linked to dog-swimming activities.

10. Alongside this initial sampling, the City Corporation and the Heath and Hampstead Society collaborated with a small group of veterinarians, pharmacists and scientists to assist with developing information for dog walkers about the potential environmental risks of chemical contamination of ponds. A webpage called ‘Safe Dog Swimming’ was produced and hosted by the independent organisation Veterinary Prescriber.

Current position and research

11. To establish the source of the chemicals that were identified in the two dog-swimming ponds, a master’s student from the Royal Veterinary College (RVC) was engaged in February 2023 to assist with this project.

12. The investigation compared chemical concentrations in ponds frequently used for dog swimming with those where dog swimming does not occur. Samples from streams that connect to these ponds were also collected to check for other sources of possible contamination.

13. The study results indicated that the chemical contamination in ponds was strongly correlated to dog-swimming activities and that the majority of dog owners were unaware of the potential environmental impacts of the products used.

Research findings

14. Using the data collected in 2023, the City Corporation, Heath and Hampstead Society, RVC, and scientists from Imperial College and the University of Sussex, collaborated to produce a scientific paper.

15. The research findings corroborated the correlation between dog-swimming activities and contamination of Heath ponds by the pesticides imidacloprid

and fipronil and these chemicals were likely to be having a negative impact on pond life.

16. As these products have low toxicity to dogs and humans, they are very unlikely to pose any risk to human or dog health as they were found at very small concentrations (nanograms per litre).

17. The study also found that 86% of the dog owners surveyed were found to be unaware of the potential environmental impact of the products they used, but 94% of respondents indicated that the protection of nature would be an important consideration when selecting veterinary products.

18. There was considerable variation in the type of products used and the mode of application with some respondents not using any flea and tick products. Therefore, any potential risks and impacts could vary greatly depending on the particular dog visiting and swimming in the pond.

19. Another master's student from the Centre of Alternative Technology was engaged by the City Corporation and the Heath and Hampstead Society earlier in 2024 to investigate the potential impacts of these chemicals on invertebrates and data from this project is still being analysed.

Potential future options

20. Officers are now considering what the future options are to reduce the risk and impacts of chemical contamination of the ponds. The options are to:

    a. Update the 'Hampstead Heath Ponds and Wetlands Plan' to include the impact of dog swimming on pesticide introduction;
    b. Review the recommendations from the Ponds and Wetlands Conservation Plan (2020) with regards to dog swimming in ponds to determine areas where additional is action is needed to reduce the risk and impacts of chemical contamination of the ponds;
    c. Review access to Heath ponds for dog swimming once the results of the remaining analyses have been obtained and reviewed;
    d. Raise public awareness of the potential environmental impacts of dog swimming on Hampstead Heath through various communications media, including social media and on-site interpretation;
    e. Consider stakeholder consultation to develop a risk reduction strategy concerning dog swimming;
    f. Continue to assist and support research projects on Hampstead Heath to increase knowledge of the likely impacts of chemical contamination

of the ponds and to monitor the effectiveness of any mitigation measures implemented;

g. Continue to liaise and work alongside appropriate external institutions to understand current research and mitigation proposals and plans.

Corporate & strategic implications

21. This work has implications for the aims set out in the City of London's Corporate Plan 2024-2029, and contributes to the strategic outcomes 'Leading Sustainable Environment' and 'Flourishing Public Spaces', with the performance measure of an increase in natural environment biodiversity.

22. Relevant themes in the Natural Environment Division's Nature Conservation and Resilience Strategy include: Theme 1: To protect and enhance the biodiversity of our open spaces, and; Theme 2: To increase the resilience of our open spaces within a wider, interconnected natural landscape.

23. The paper also has implications for the Hampstead Heath Management Strategy 2018-2028: Strategic Outcome A: The Heath is maintained as a flourishing green space and historic landscape.

Financial implications

24. No implications.

Resource implications

25. No implications.

Legal implications

26. In taking forward any proposals under paragraph 20 a balance must be struck between the competing requirements to preserve the natural aspect and state of the Heath (including its environment and ecology) and provide a public open space for the recreation and enjoyment of the public.

Risk implications

27. Almost all the imidacloprid and fipronil concentrations in the dog swimming ponds exceeded a range of established measures for environmental-toxicity thresholds. On this basis, it is likely that their presence poses a risk to aquatic biodiversity. Failing to seek solutions to this issue will cause reputational damage to the City Corporation.

Equalities implications

28. No implications.

Climate implications

29. A key part of the City of London's Climate Action Strategy is conserving and enhancing biodiversity. These findings show that dog swimming may be having an impact on Heath biodiversity. The ongoing local study in this area will assist with analysing the potential impacts and guide future proposals and actions on Hampstead Heath.

Security implications

30. No implications.

Conclusion

31. This report provides Consultative Committee Members with the background to, and the findings of, a scientific paper on chemical contamination of ponds published in the international journal 'Science of the Total Environment' Volume 955, 10 December 2024, 176686.

32. The report identifies dog swimming as the likely source of pesticide contamination into ponds in which dog swimming occurs.

33. The report identifies a number of potential future options for reducing and monitoring the extent and impact of pesticide contamination of Hampstead Heath ponds. Members are asked to consider the report findings and potential options and to make representations to the Grand Committee about these findings and options.

Appendices

- Dog swimming and ectoparasiticide water contamination in urban conservation areas: A case study on Hampstead Heath, London'. https://www.sciencedirect.com/science/article/pii/S0048969724068426?via%3Dihub

Adrian Brooker
Senior Ecologist
North London Open Spaces
Environment Department
Adrian.Brooker@cityoflondon.gov.uk