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Radiological Habits Survey: Amersham, 2016

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Environment Report RL 02/17

Radiological Habits Survey: Amersham, 2016

F.J. Clyne, C.J. Garrod, A. Dewar, B. Greenhill and V.E. Ly

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Project Manager:	Fiona Clyne
Report compiled by:	Fiona Clyne
Quality control by:	Alastair Dewar
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KEY POINTS

Aquatic survey area

- No interviewees were consuming foods from the aquatic survey area. However, there were unconfirmed reports that fish and signal crayfish were being caught in the Grand Union Canal and the River Colne and were being consumed.
- Activities were identified taking place along the Grand Union Canal but no activities were identified taking place along the River Colne. The highest occupancy rate was for a person who was walking along the Grand Union Canal towpath.
- There was a large decrease in the occupancy rate on the towpath since the last survey in 2009 due to a high-rate angler who was recorded in 2009 but was not identified in 2016.

Terrestrial survey area

- High consumption rates were identified for locally produced food in the following food groups: green vegetables, root vegetables, potato, milk, pig meat, sheep meat and eggs. Other vegetables, domestic fruit, cattle meat, poultry, wild/free foods, rabbits/hares, honey, wild fungi, freshwater fish, freshwater crustaceans, freshwater plants were also consumed.
- Since the last survey in 2009, there were notable decreases in the consumption rates of foods from the following food groups: green vegetables, milk, pig meat and poultry. The consumption of venison was identified in 2009 but not in 2016.
- Human consumption of well water and borehole water was identified at two households. Livestock were drinking the water from the River Chess and the River Misbourne.

Direct radiation survey area

- Occupancy habits within 1 km of the site included those related to residential, work and recreational activities.
- The highest occupancy rates in all three zones were for residents and were all over 8000 h y^{-1}.
- Occupancy rates were broadly similar to those recorded in the last survey in 2009. The main change was an increase in the outdoor occupancy rate in the 0 – 0.25 km zone in 2016.

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SUMMARY

This report presents the results of a survey conducted in 2016 to determine the habits and consumption patterns of people living, working and pursuing recreational activities in the vicinity of the GE Healthcare nuclear licensed site at Amersham in Buckinghamshire. The site is authorised to discharge liquid radioactive waste via the sewers serving the Maple Lodge Sewage Treatment Works and the treated effluent from the works enters the Grand Union Canal and the River Colne. The site is authorised to discharge gaseous radioactive waste via stacks to the atmosphere and contains sources of direct radiation. Areas likely to be most affected by the discharges and sources of radiation were defined as the aquatic survey area for liquid discharges, the terrestrial survey area for the deposition from gaseous discharges, and the direct radiation survey area for ionising radiation emanating directly from the site. An overview of the aquatic, terrestrial and direct radiation survey areas is provided in Figure 1 (page 19). The occupancy data collected from the direct radiation survey area is also applicable to inhalation and external exposure arising from gaseous releases from the site.

The following potential exposure pathways were investigated:

- The consumption of food from the aquatic survey area
- Activities and occupancy over canal and river banks
- The handling of fishing gear and sediment
- Activities and occupancy in and on water
- The consumption of food from the terrestrial survey area
- The use and destination of produce originating from the survey areas
- The consumption and use of groundwater and surface water in the terrestrial survey area
- The transfer of contamination off-site by wildlife
- Activities and occupancy within the direct radiation survey area
- Any new or unusual exposure pathways

Information was collected from members of the public by means of interviews and the data obtained for 480 individuals are presented and discussed. High rates of consumption and canal bank occupancy are identified using established methods comprising (a) a ‘cut off’ to define the high-rate group and (b) 97.5th percentiles. The rates so identified can be used in dose assessments. Additionally, profiles of integrated habits data are presented specifically for use in total dose assessments.

The aquatic survey area

The aquatic survey area covered sections of the Grand Union Canal and the River Colne including their banks. The northern limit of the survey area for the canal and the river was the outfall of the Maple Lodge Sewage Treatment Works. The southern limit of the aquatic survey area for the canal was

Denham Deep Lock, and for the river was the confluence of the River Colne and the River Misbourne. The aquatic survey area is shown in Figure 2 (page 20). No legal commercial or hobby fishing was taking place on the Grand Union Canal since the removal of fish and shellfish was not permitted. The licensed trapping of signal crayfish was permitted on the River Colne and there was a two fish per day per person bag limit for anglers. No interviewees were consuming foods from the aquatic survey area. However, there were unconfirmed reports that coarse fish (such as pike and perch) and signal crayfish from the aquatic survey area were being caught and consumed. Therefore, it is suggested that consumption rates of 1 kg y^{-1} for coarse fish and 1 kg y^{-1} for signal crayfish are considered for radiological dose assessment purposes (see Annex 3).

Activities were identified taking place along the Grand Union Canal but no activities were identified along the River Colne. The adult high-rate groups for canal bank occupancy were for people angling, walking and dog walking. Gamma dose rate measurements were taken on the banks of the Grand Union Canal at locations where activities occurred. No interviewees were handling fishing gear or sediment in the survey area. Occupancy in close proximity to sewage sludge and sewage cake bio-solids was recorded for employees at the Maple Lodge Sewage Treatment Works because the liquid radioactive waste from the Amersham site is discharged via the sewers to the sewage treatment works. On the Grand Union Canal, people were undertaking water-based activities such as kayaking, living on houseboats and pleasure cruising.

The terrestrial survey area

The terrestrial survey area (see Figure 3, page 21) covered the land and freshwater watercourses within 5 km of the centre of the Amersham site. Interviews were conducted at 10 farms in the terrestrial survey area. They produced, beef cattle, lambs, pigs, cows' milk, chicken eggs, watercress, wheat, oil seed rape and oats. Grass was grown for silage and hay for use as animal feed on the farms on which they were produced. Beef, pork, lamb, milk, chicken eggs and watercress were consumed by farmers and their families.

Two smallholdings were identified within the survey area, which produced pigs, lambs, beef cattle, chicken eggs, goose eggs and duck eggs. Eleven allotment sites, with approximately 400 plots in total, and many private gardens were identified, where a variety of fruit and vegetables were grown. Several people kept chickens for eggs for their own families' consumption or for sale locally. Four beekeepers were interviewed who kept hives in the survey area and the consumption of honey was recorded. Shooting took place on farmland in the area and the consumption of partridge, pheasant and rabbit was recorded. Wild foods including mushrooms were collected and consumed.

Foods from the terrestrial survey area were consumed from the following food groups: green vegetables; other vegetables; root vegetables; potato; domestic fruit; milk; cattle meat; pig meat; sheep meat; poultry; eggs; wild/free foods; rabbits/hares; honey; wild fungi; freshwater fish; freshwater

crustaceans; freshwater plants. No consumption of venison was identified. The mean consumption rates for the adult high-rate groups were above the national adult mean consumption rates (that are used for comparison in habits surveys) for the following food groups: green vegetables; root vegetables; potato; milk; pig meat; sheep meat; eggs.

The consumption of groundwater by humans was identified. One household used well water and one household used borehole water as their domestic supply. Livestock were drinking water from the River Chess and the River Misbourne.

The transfer of contamination off-site by wildlife was investigated. No control measures are taken against wildlife relating to the transfer of contamination off-site since wildlife can't access controlled areas on site. The site has routine pest control measures in place.

Activities identified 'in' or 'on' freshwater in the terrestrial survey area included fly fishing from a punt on a trout lake, wading in watercress beds, and playing in the River Chess.

The direct radiation survey area

The direct radiation survey area (see Figure 3, page 21) covered all land within 1 km of the Amersham nuclear licensed site boundary. Occupancy rates were obtained for residents, visitors, and people who were working or undertaking recreational activities in the area.

The occupancy rates were analysed in zones according to the distance from the Amersham nuclear licensed site boundary. The zones were 0 – 0.25 km, >0.25 – 0.5 km and >0.5 – 1.0 km. The highest indoor, outdoor and total occupancy rates in all three zones were for residents. Gamma dose rate measurements were taken indoors and outdoors at many properties where interviews were conducted in the direct radiation survey area. Background readings were taken over grass at distances beyond 5 km from the Amersham site centre.

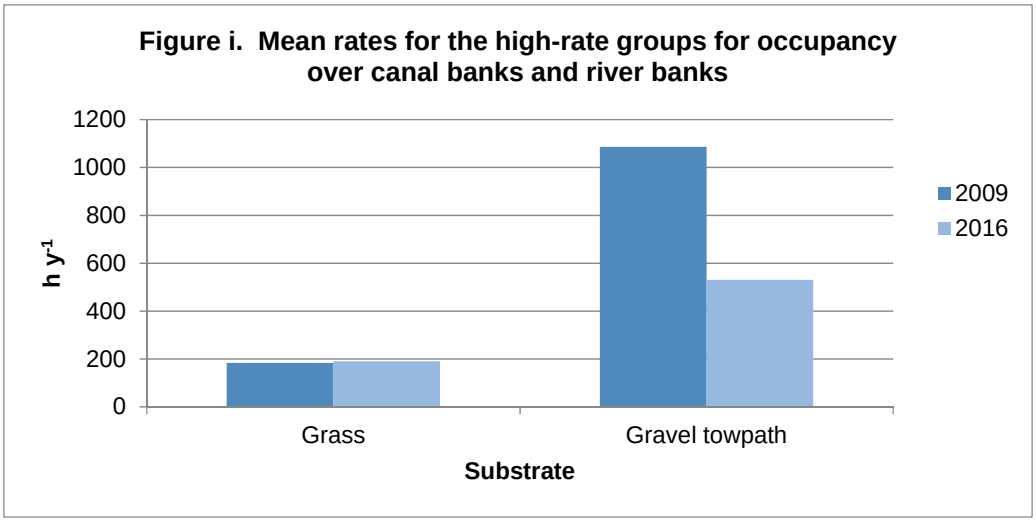
Comparisons with the previous survey

Comparisons were made with the results from the previous habits survey undertaken around the Amersham site in 2009. In 2009 and 2016, the consumption of foods from the aquatic survey area was not identified. However, in both surveys there were unconfirmed reports that fish were being removed from the aquatic survey area for consumption. In 2016, there were also unconfirmed reports that signal crayfish were being removed from the aquatic survey area for consumption.

In 2009, activities were identified on the river bank and on the canal bank, but in 2016, activities were only identified on the canal bank. The most significant change in the occupancy rates on canal and river banks was a decrease in the occupancy on the gravel towpath (see Figure i, overleaf). This

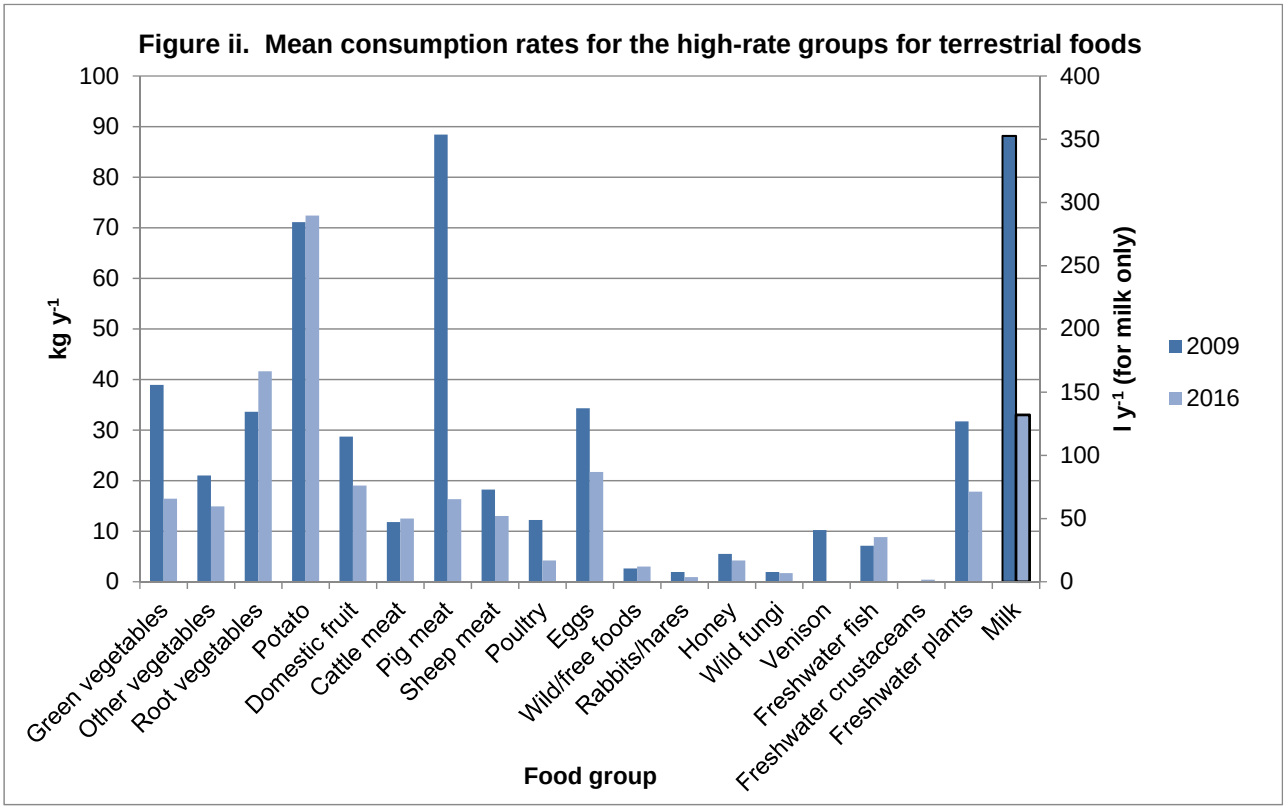
decrease was because a high-rate angler was recorded in 2009 but was not identified in 2016. For activities taking place 'in' the water, the maximum adult occupancy rate increased from 50 h y^{-1} in 2009, to 100 h y^{-1} in 2016, and for activities taking place 'on' the water, the maximum adult occupancy rate was the same in both years at 7300 h y^{-1}.

Figure i. Mean rates for the high-rate groups for occupancy over canal banks and river banks



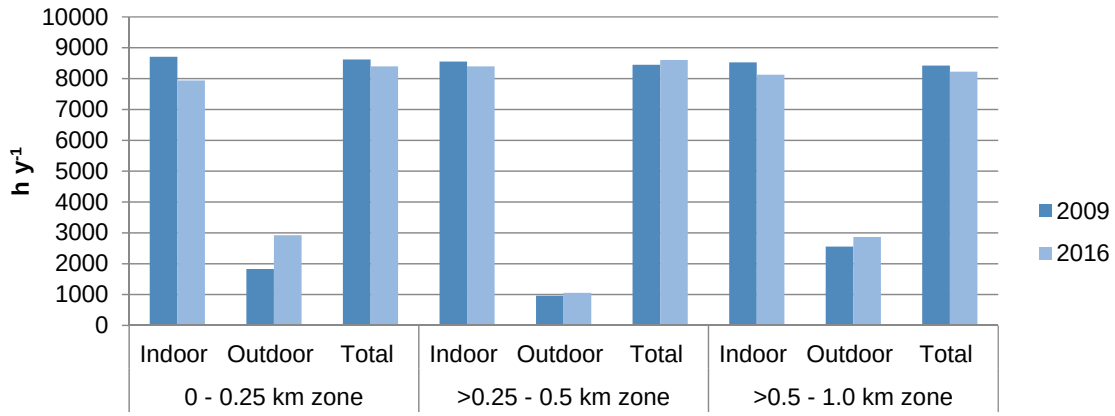
The most notable changes in the consumption rates of terrestrial foods were the decreases in the consumption of pig meat and milk (see Figure ii, below). The large decrease in the consumption of pig meat was due to a farming family who were consuming significantly less pork in 2016 than in 2009. The decrease in the consumption of milk was due to a farming family who reduced their consumption of cows' milk in 2016, and a family who kept goats for milk in 2009 had moved away from the area by 2016.

Figure ii. Mean consumption rates for the high-rate groups for terrestrial foods



The most marked change in the occupancy rates in the direct radiation survey area was an increase in the outdoor occupancy in the 0 - 0.25 km zone (see Figure iii, below). This was attributed to a resident spending more time outdoors in 2016 than in 2009.

Figure iii. Maximum direct radiation occupancy rates



Habits survey information for consideration when selecting samples and measurements for monitoring programmes

The foods and locations identified in the 2016 Amersham habits survey could be used to assist in the selection of samples and measurements for monitoring programmes. The foods that were either consumed in the largest quantities in their food groups, or were the only food in their food group, are presented in Section 10.2 for consideration when selecting samples for the Food Standards Agency monitoring programme. The current environmental monitoring programme carried out for the Environment Agency adequately covers the Amersham area and no changes to this are suggested.

1 INTRODUCTION

Members of the public might be exposed to radiation as a result of the operations of the Amersham nuclear licensed site, either through the permitted discharges of liquid or gaseous radioactive wastes into the local environment, or from radiation emanating directly from the site. This report provides information on activities carried out by members of the public in the vicinity of the Amersham site, which may influence their radiation exposure. The study has been funded by the Environment Agency, the Food Standards Agency and the Office for Nuclear Radiation in order to support their respective roles in protecting the public from exposure to radiation.

UK policy on the control of radiation exposure has long been based on the recommendations of the International Commission on Radiological Protection (ICRP), which embody the principles of justification of practices, optimisation of protection and dose limitation. Radiological protection of the public is based on the concept of a 'representative person'. This notional individual is defined as being representative of the more highly exposed members of the population. It follows that, if the dose to the representative person is acceptable when compared to dose limits and optimisation, other members of the public will receive acceptable doses, and overall protection to the public is provided from the effects of radiation. The term 'representative person' is equivalent to, and replaces, the term 'average member of the critical group' as recommended by ICRP (ICRP, 2006). The recommendations of the ICRP were updated in 2007 (ICRP, 2007) and, for the public, still include the principle of protecting the individuals most highly exposed to radiation, characterised by the representative person.

1.1 Regulatory framework

In England, the Environment Agency regulates the discharges of radioactive waste under the Environmental Permitting (England and Wales) Regulations 2016 (UK Parliament, 2016). The regulations take account of the European Union (EU) Basic Safety Standards (BSS) Directive 96/29/Euratom (Commission of the European Communities, 1996) which embody the recommendations of the ICRP, particularly ICRP 60 (ICRP, 1991). A new Basic Safety Standards (BSS) Directive was adopted by the European Council on 5th December 2013 (EC, 2014) and the UK Government is currently required to implement the Directive into UK law by 6th February 2018. Installation and operation of certain prescribed activities can only occur on sites if they are licensed under the Nuclear Installations Act 1965 (as amended) (NIA 65) (UK Parliament, 1965). Since 1st April 2011, the Office for Nuclear Regulation (ONR), has implemented this legislation and is also responsible for regulating, under the Ionising Radiations Regulations 1999 (IRR 99) (UK Parliament, 1999), the exposure of the public to direct radiation from the operations occurring on these sites. Prior to 1st April 2011 these functions were carried out by the Nuclear Installations Inspectorate of the Health and Safety Executive.

Appropriate discharge limits are set by the Environment Agency, after wide-ranging consultations that include the Food Standards Agency. The Food Standards Agency has responsibilities for ensuring that any radioactivity present in food does not compromise food safety and that permitted discharges of radioactivity do not result in unacceptable doses to consumers via the food chain. The Food Standards Agency also ensures that public radiation exposure via the food chain is within EU acceptable limits.

1.2 Radiological protection framework

Dose standards for the public are embodied in the national policy (UK Parliament, 2009), in guidance from the International Atomic Energy Agency (IAEA), in the Basic Safety Standards for Radiation Protection (IAEA, 1996) and in European Community legislation in the EU BSS Directive 96/29/Euratom (Commission of the European Communities, 1996). The public dose standards were incorporated into UK law in IRR 99. The requirement to observe the conditions laid down in the Basic Safety Standards (BSS) in England and Wales is incorporated in the Environmental Permitting (England and Wales) Regulations 2016 (UK Parliament, 2016). These require that the environment agencies ensure, wherever applicable, that:

- All public radiation exposures from radioactive waste disposals are kept As Low As Reasonably Achievable (ALARA), with social and economic factors being taken into account
- The sum of all exposures does not exceed the dose limit of 1 mSv a year
- The dose received from any new source does not exceed 0.3 mSv a year
- The dose received from any single site does not exceed 0.5 mSv a year

The dose limit of 1 mSv per year to the public from all anthropogenic sources other than medical applications is also the recommendation made by the ICRP (ICRP, 2007).

The environment agencies are also required to ensure that the dose estimates are as realistic as possible for the population as a whole and for reference groups of the population. They are required to take all necessary steps to identify the reference groups of the population taking into account the effective pathways of transmission of radioactive substances. Guidance on the principles underlying prospective radiological assessments (i.e. assessments of potential future doses) has been provided by the National Dose Assessment Working Group (NDAWG), which consists of representatives of UK Government Bodies and other organisations with responsibilities for dose assessments (EA, SEPA, DoENI, NRPB and FSA, 2002). NDAWG has also published principles underlying retrospective radiological assessment (i.e. assessment of doses already received from past discharges) (Allott, 2005) and possible methods of carrying out these assessments using the data from combined habits surveys (Camplin *et al.*, 2005). NDAWG agreed that the optimal method for performing retrospective dose assessments would be to use habits profiles (profiling method) as described in Camplin *et al*. (2005). This approach is adopted in Radioactivity in Food and the Environment (RIFE) publications, (e.g. EA, FSA, FSS, NRW, NIEA and SEPA, 2016). NDAWG has also published reports on the collection and use of habits survey data in retrospective and prospective dose assessments (NDAWG, 2005; NDAWG

2009); the principles described in these reports are consistent with those used here. More recently, the UK environment agencies, the Health Protection Agency (now part of Public Health England) and the Food Standards Agency have jointly produced an update of the 2002 interim guidance and principles for assessing doses (EA, SEPA, NIEA, HPA and FSA, 2012).

2 THE SURVEY

2.1 Site activity

The Amersham nuclear licensed site is located at the Grove Centre, Amersham, Buckinghamshire (see Figure 1, page 19).

The Amersham site is owned and operated by GE Healthcare Ltd. It has a range of plants for manufacturing diagnostic imaging products for use in medicine and research, and is currently decommissioning certain buildings and plants. Under the Radioactive Substances Regulation of the Environmental Permitting Regulations 2010, GE Healthcare Ltd is permitted to undertake radioactive substances activities at the Amersham site. This includes permission to discharge gaseous radioactive wastes via stacks to the atmosphere and liquid radioactive wastes via the sewers serving the Maple Lodge Sewage Treatment Works. The site is licensed for the purposes of operating certain activities prescribed under the Nuclear Installations Act, 1965. The site contains sources of direct radiation.

2.2 Survey objectives

The Centre for Environment, Fisheries & Aquaculture Science (Cefas) undertook the Amersham habits survey in 2016 on behalf of the Environment Agency, the Food Standards Agency, and the Office for Nuclear Regulation. The aim of the survey was to obtain comprehensive information on the habits of the public that might lead to their exposure to radiation via gaseous discharges, liquid discharges and direct radiation from the Amersham nuclear site.

Specifically, investigations were conducted into the following:

- The consumption of food from the aquatic survey area
- Activities and occupancy over canal and river banks
- The handling of fishing gear and sediment
- Activities and occupancy in and on water
- The consumption of food from the terrestrial survey area
- The use and destination of produce originating from the survey areas
- The consumption and use of groundwater and surface water in the terrestrial survey area
- The transfer of contamination off-site by wildlife
- Activities and occupancy within the direct radiation survey area
- Any new or unusual exposure pathways

No additional site-specific investigations were requested by the Environment Agency, the Food Standards Agency or the Office for Nuclear Regulation.

2.3 Survey areas

The geographic extents of potential effects from liquid discharges, from deposition from gaseous releases, and from direct radiation are different. Therefore, different survey areas were defined to cover each of these three main possible sources of exposure. These were an aquatic survey area relating to liquid discharges, a terrestrial survey area relating to deposition from gaseous discharges, and a direct radiation survey area relating to ionising radiation emanating directly from the site. An overview of the aquatic, terrestrial and direct radiation survey areas is provided in Figure 1 (page 19).

The aquatic survey area (see Figure 2, page 20) covered sections of the Grand Union Canal and the River Colne including their banks. The northern limit of the survey area for the canal and the river was the outfall of the Maple Lodge Sewage Treatment Works. The southern limit of the aquatic survey area for the canal was Denham Deep Lock and for the river was the confluence of the River Colne and the River Misbourne.

The terrestrial survey area (see Figure 3, page 21) covered the land and freshwater watercourses within 5 km of the site centre (National Grid Reference: SU 984 975) to encompass the main areas of potential deposition from gaseous discharges.

The direct radiation survey area (see Figure 3, page 21) covered the land within 1 km of the nuclear licensed site boundary. The occupancy data collected from the direct radiation survey area is also applicable to inhalation and external exposure pathways arising from gaseous releases from the site.

The same aquatic, terrestrial and direct radiation survey areas were used in the previous habits survey conducted by Cefas in the Amersham area, which was in 2009 (Clyne *et al*., 2010).

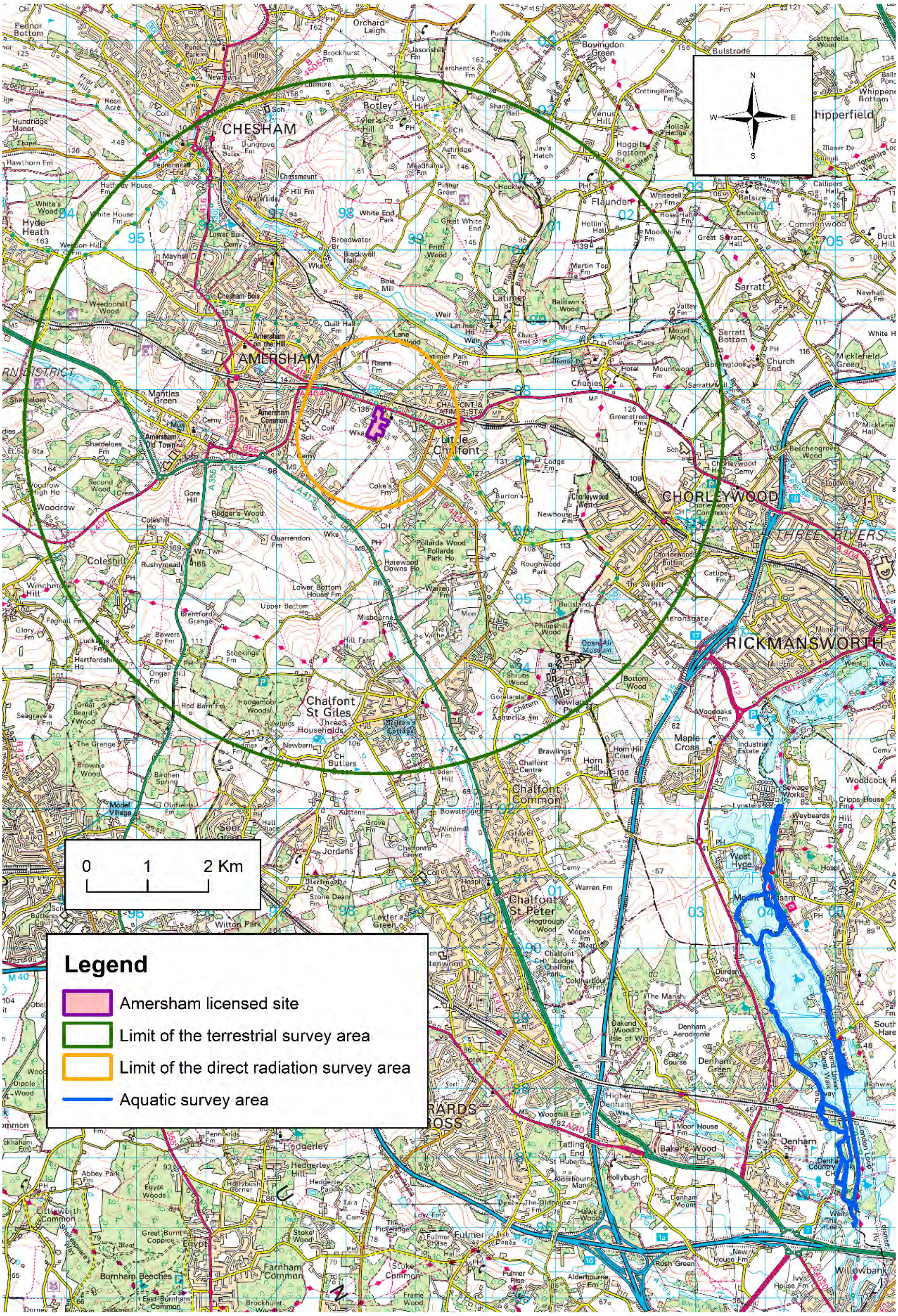


Figure 1. Overview of the Amersham aquatic, terrestrial and direct radiation survey areas

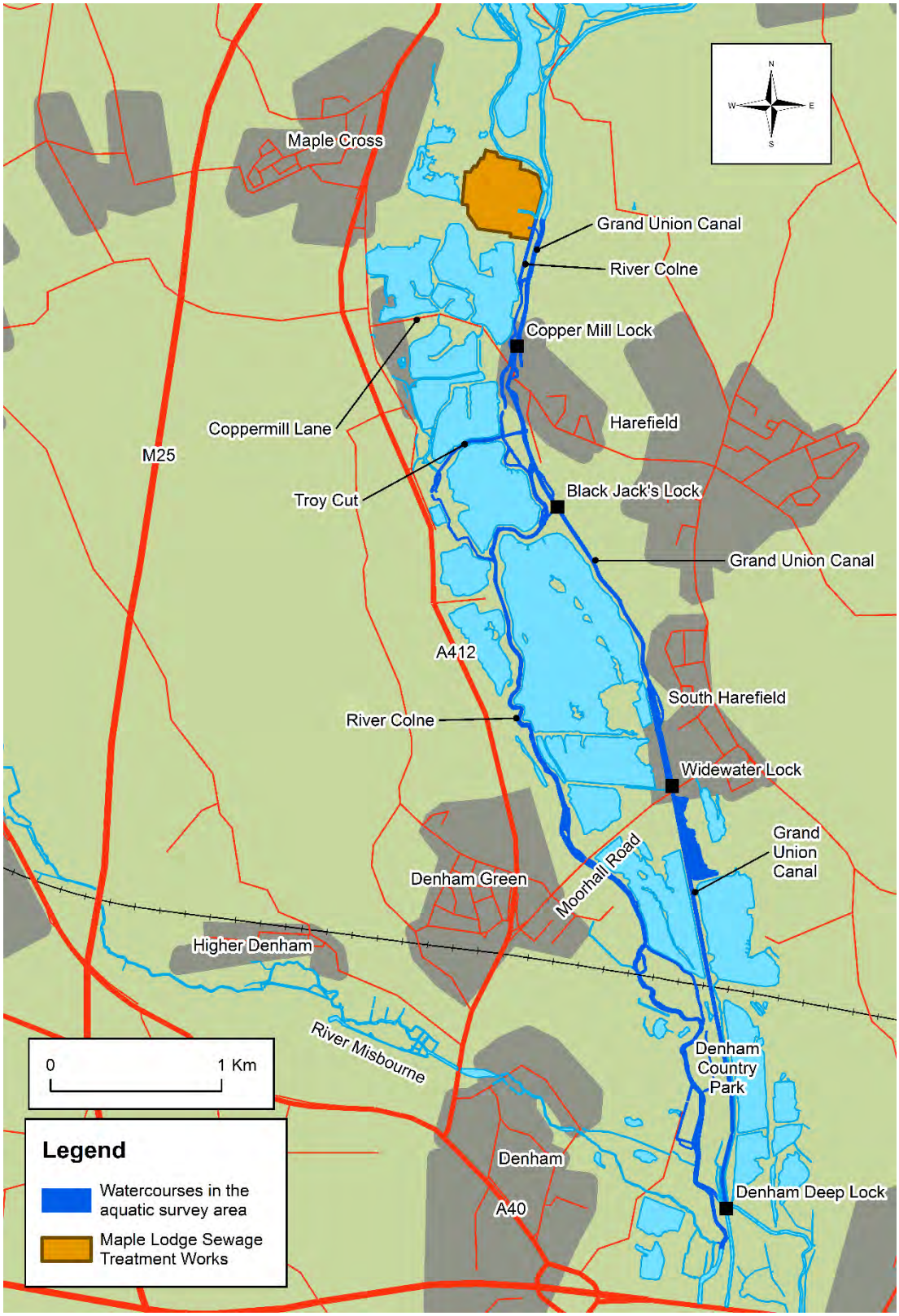


Figure 2. The Amersham aquatic survey area

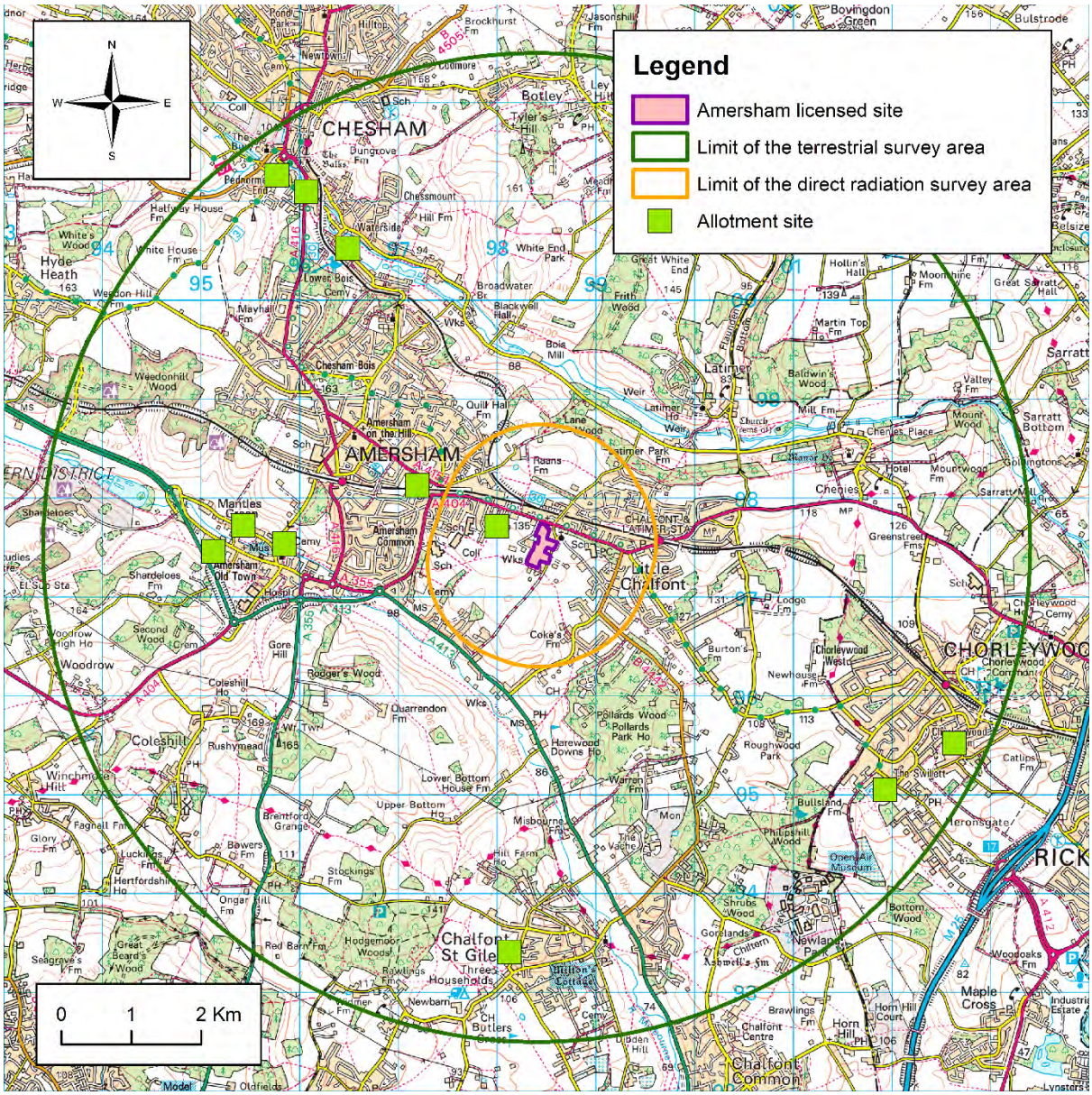


Figure 3. The Amersham terrestrial and direct radiation survey areas

2.4 Conduct of the survey

As part of the pre-survey preparation, the Environment Agency, the Food Standards Agency and the Office for Nuclear Regulation were contacted to identify any additional site-specific requirements. Information relating to the activities of people in the aquatic and terrestrial survey areas was obtained from Internet searches, Ordnance Survey maps and from previous habits surveys undertaken around the Amersham site. People with local knowledge of the survey area were contacted for information relevant to the various exposure pathways. These included, representatives of the local angling clubs and representatives of local councils.

A proposed programme for fieldwork was distributed to the Environment Agency, the Food Standards Agency and the Office for Nuclear Regulation before the fieldwork commenced, for their comment.

The fieldwork was carried out from the 16th to the 26th August 2016 by a survey team of three people, according to techniques described by Leonard *et al.* (1982). During the fieldwork, a meeting was held between a member of the survey team and representatives from GE Healthcare. This discussion provided details about current site activities, local information, potential exposure pathways and activities in the area, and the potential for transfer of contamination off-site by wildlife.

The following information was obtained during the meeting:

- Current activities on site include the production of radiopharmaceuticals and decommissioning of certain buildings and plants.
- The volume of liquid discharges released to the sewers has reduced since 2009.
- The direct radiation emanating from the site is anticipated to decrease as the decommissioning activities continue.
- No control measures are taken against wildlife relating to the transfer of contamination off-site since wildlife can't access controlled areas on site. The site has routine pest control measures in place.
- Information about potential pathways and activities in the area included: walkers and dog walkers using the paths to the east and south of the site; and licensed crayfish trapping is being undertaken on the lakes adjacent to the River Chess.

Interviews were conducted with individuals who were identified in the pre-survey preparation and others that were identified during the fieldwork. These included, for example, anglers, people spending time on canal banks, farmers, allotment holders, beekeepers and people spending time within the direct radiation survey area. Interviews were used to establish individuals' consumption, occupancy and handling rates relevant to the aquatic, terrestrial and direct radiation survey areas. Any other information of possible use to the survey was also obtained. Gamma dose rate measurements were taken over substrates in the aquatic area, and indoors and outdoors at many properties in the direct radiation survey area where interviews were conducted. Background gamma dose rates were taken at

a distance beyond 5 km from the site centre. All gamma dose rate measurements were taken using a Mini 600 Series Type 6-81 Environmental Radiation Meter with a compensated Geiger-Müller tube.

For practical and resource reasons, the survey did not involve the whole population in the vicinity of the Amersham site, but targeted subsets or groups, chosen in order to identify those individuals potentially most exposed to radiation pathways. However, it is possible that even within a subset or group there may have been people not interviewed during the survey. Therefore, to aid interpretation, the number of people for whom data were obtained in each group as a percentage of the estimated complete coverage for that group (where it was possible to make such an estimate) has been calculated. The results are summarised in Table 1. The 'groups' are described and quantified, and the numbers of people for whom data were obtained are given as percentages of the totals. For certain groups, such as anglers, it can be virtually impossible to calculate the total number of people who undertake the activity in the survey area because it is difficult to quantify visitors from outside the area or occasional visitors during the year. Based on UK Office of National Statistics residential data for electoral wards (www.ons.gov.uk) there were approximately 44,000 people living in the terrestrial survey area, although information was obtained for a significantly smaller number than this. The survey did not include employees or contractors at the nuclear licensed sites while they were at work. This is because dose criteria applicable to these people whilst at work and the dose assessment methods are different from those for members of the public. However, data were collected for employees and contractors while outside work if these people were encountered during the survey.

People were initially questioned about their habits relating to the survey area that their first identified activity occurred in and, where possible, they were also asked about their habits relating to the other two survey areas. For example, people in the terrestrial survey were initially questioned because it was known that they grew or produced significant quantities of terrestrial foodstuffs. However, they were also asked about habits that might lead to exposure to liquid discharges or direct radiation. During interviews with representatives from organisations, such as local businesses, it was not possible to collect data for all pathways (for example consumption of local foods) for each person. In these cases, the data were limited to those relating to the primary reason for the interview, for example, in the case of a business within the 1 km direct radiation survey area, the occupancy rates for the employees.

3 METHODS FOR DATA ANALYSIS

3.1 Data recording and presentation

Data collected during the fieldwork were recorded in logbooks. On return to the laboratory, the data were examined and any notably high rates were double-checked, where possible, by way of a follow-up phone call. In cases where follow-up phone calls were not possible (e.g. interviewees who wished to remain anonymous), the data were accepted at face value. The raw data were entered into a data capture application then uploaded to a habits survey database where each individual for whom information was obtained was given a unique identifier (the Person ID number) to assist in maintaining data quality and traceability.

Where generalised data for large groups of people were collected, such as occupancy rates in the direct radiation survey area for employees at businesses, only a limited number of representative individuals have been included in the data entered into the database.

The results of the individuals' consumption, occupancy and handling rates collected during the survey were grouped and presented in tables with the high-rate group members indicated in bold and with the calculated mean rates for the high-rate group and 97.5th percentile rates. The consumption rates, occupancy rates and handling rates for all groups are presented in Annex 1 for adults and Annex 2 for children and infants, with the high-rate group members indicated in bold.

Where quantifiable data cannot be obtained from interviews but pathways are believed to exist, it is sometimes necessary to provide estimated habits data for use in radiological dose assessments. Annex 3 contains estimated data for pathways where it was not possible to obtain quantifiable data from interviews. Consumption rates for coarse fish and signal crayfish from water subject to liquid discharges are presented since there were unconfirmed reports of these foods being consumed.

3.2 Data conversion

During the interviews, people could not always provide consumption rates in kilograms per year for food or litres per year for milk. In these circumstances, interviewees were asked to provide the information in a different format. For example, some estimated the size and number of items (e.g. eggs) consumed per year, whereas others gave the number of plants in a crop or the length and number of rows in which the crop was grown per year. The habits survey database converted these data into consumption rates (kg y^{-1} for food and l y^{-1} for milk) using a variety of conversion factors. These factors included produce weights (Hessayon, 1990 and 1997 and Good Housekeeping, 1994), edible fraction data researched by Cefas, and information supplied by the Meat and Livestock Commission.

3.3 Rounding and grouping of data

The consumption and occupancy data in the text of this report are rounded to two significant figures, except for values less than 1.0, which are rounded to one decimal place. This method of presentation reflects the authors' judgement on the accuracy of the methods used. In the tables and annexes, the consumption rate data are presented to one decimal place. Occasionally, this rounding process causes the computed values (row totals, mean rates and 97.5th percentiles), which are based on un-rounded data, to appear slightly erroneous. Consumption rates less than 0.05 kg y^{-1} are presented to two decimal places in order to avoid the value of 0.0 kg y^{-1}. External exposure data are quoted as integer numbers of hours per year.

For the purpose of data analysis, foodstuffs were aggregated into food groups as identified in Table 2. Specific food types relevant to this survey are presented in the subsequent tables. The data are structured into groups when it is reasonable to assume that consistent concentrations or dose rates would apply within the group. For example, when considering terrestrial food consumption, all types of root vegetables are grouped together in a food group called 'root vegetables'. For external exposure over substrates, occupancies over the same substrate (e.g. grass) are grouped together.

Data were structured into age groups because different dose coefficients (i.e. the factors which convert intakes of radioactivity into dose) can apply to different ages. The International Commission on Radiological Protection (ICRP) revised its recommendations for the age groupings to be used in radiological assessments and these recommendations were adopted in the 2010 habits survey reports and thereafter. Consequently, the age ranges used in the habits survey reports prior to 2010 differ from those used currently. The age ranges used in this report and the names used for the age groups, based on the recommendations in ICRP 101 (ICRP, 2007), are shown in Table A below, together with those used in reports prior to 2010, for comparison.

Table A. Names of age groups and range of ages within each age group.

Age ranges used from 2010 onwards			Age ranges used prior to 2010	
Name of age group[a]	**Age range in group**		**Name of age group**	**Age range in group**
Infant	0 to 5-year-old		3-month-old	Under 1-year-old
			1-year-old	1-year-old
			5-year-old	2-year-old to 6-year-old
Child	6-year-old to 15-year-old		10-year-old	7-year-old to 11-year-old
			15-year-old	12-year-old to 16-year-old
Adult	16-year-old and over		Adult	17-year-old and over

[a] In the 2010 reports only, the infant age group was called the 1-year-old age group and the child age group was called the 10-year-old age group.

Since there are fewer age groups for children in the current regime, there should, in general, be more observations in each group, resulting in greater robustness in the data. However, data since 2010 will

not be directly comparable with data prior to 2010, since the age ranges in the age groups will be different.

For direct radiation pathways, the data were grouped into distance zones from the nuclear site boundary as a coarse indication of the potential dose rate distribution due to this source of exposure. The bands used in this report were: 0 - 0.25 km; >0.25 - 0.5 km; >0.5 - 1.0 km. These distance bands are also useful when assessing exposure to gaseous discharges.

3.4 Approaches for the identification of high rates

The habits data have been analysed to identify high rates of consumption, occupancy and handling, which are suitable for use in radiological assessments. Two approaches have been used:

Firstly, the 'cut-off' method described by Hunt *et al.* (1982) was used. With the 'cut-off' method, the appropriate high rate was calculated by taking the arithmetic mean of the values between the maximum observed rate and one third of the maximum observed rate. In this report, the term 'high-rate group' is used to represent the individuals derived by the 'cut-off' method. The mean of the high-rate group was calculated for each food group, substrate and handling pathway identified in the survey. In certain cases, using the 'cut-off' method resulted in only one person being in the high-rate group. In these cases, expert judgement was used to decide whether the high-rate group should remain as one individual or whether others should be included. If others were included, the second highest rate was divided by three and all observations above this were included in the high-rate group.

Secondly, the 97.5th percentile rate was calculated for each group. The use of percentiles accords with precedents used in risk assessments of the safety of food consumption. It should be noted that the interviewees in this study are often selected and, therefore, the calculated percentiles are not based on random data.

Mean and 97.5th percentile consumption rates for adults, based on national statistics, are provided as a baseline for comparison with the observed rates. The rates based on national statistics are referred to as generic rates in this report and have been taken from Byrom *et al.,* 1995.

The mean rates for the high-rate groups for children and infants for consumption, occupancy and handling pathways, have been calculated. However, in cases where few child or infant observations were identified, an alternative approach that may be used for assessments is to estimate the mean rates for the high-rate groups for children and infants by applying scaling ratios to the mean rates for the high-rate groups for adults. Ratios for this purpose for the consumption and occupancy pathways, based on generic 97.5th percentile rates, are provided in Annex 4. The age ranges within the age groups in Annex 4 do not correspond exactly with the age ranges within the age groups used throughout the

rest of this report, but these ratios are the best available data for estimating child rates and infant rates from adult rates. Adult to child and adult to infant ratios are not available for handling pathways.

For use in assessments of foetal dose, consumption and occupancy rates are provided in Annex 5 for women of childbearing age. The age range used in this report for women of childbearing age is 15 – 44 years old, which is based on the classification used by the Office of National Statistics (www.ons.gov.uk).

For the direct radiation pathway, mean occupancy rates and 97.5th percentile rates have not been calculated. Such an analysis is of limited value without a detailed knowledge of the spatial extent of dose rates due to direct radiation.

3.5 Profiles of habits survey data for use in total dose assessments

The survey data have been analysed to produce profiles of consumption and occupancy rates according to the method described by Camplin *et al.,* 2005. The profiles for adults are used to assess total dose integrated across all pathways of exposure in the RIFE reports (e.g. EA, FSA, FSS, NRW, NIEA, and SEPA, 2016).

Matrices of profiles for adults, children, infants and women of childbearing age are presented in Annexes 6 to 9 respectively. Within each matrix, the means for the high-rate groups, as determined by the 'cut-off' method, are presented on the diagonal. Except for the direct radiation pathway the figures across the rows are the means of the consumption and occupancy rates for the other pathways for the individuals within that profile. For the direct radiation pathway the figure denotes the proportion of the individuals within that profile who spend time within the direct radiation survey area.

3.6 Data quality

To ensure the quality of the data collected during the survey fieldwork and presented in the report, the following procedures have been employed:

- Experienced scientific staff were used for the fieldwork and data analysis. They had been trained in the techniques of interviewing and obtaining data for all pathways that were relevant to the survey being conducted. Where individuals offered information during interview that was considered unusual, they were questioned further in order to double-check the validity of their claims.
- Where possible, interviewees were contacted again to confirm the results of the initial interview if, when final consumption or occupancy rates were calculated, observations were found to be high in relation to our experience of other surveys. Local factors were taken into account in these cases.

- Data were processed in a purpose-built habits survey database using a consistent set of conversion factors.
- Data were stored in a database in order to minimise transcription and other errors.
- Draft reports were reviewed by the Environment Agency, the Food Standards Agency and the Office for Nuclear Regulation, and by a senior radiological assessor.
- Final reports were only issued when the Environment Agency, the Food Standards Agency and the Office for Nuclear Regulation were entirely satisfied with the format and content of the draft report.

4 AQUATIC RADIATION PATHWAYS

4.1 Aquatic survey area

The aquatic survey area covered sections of the Grand Union Canal and the River Colne including their banks. The northern limit of the survey area for the canal and the river was the outfall of the Maple Lodge Sewage Treatment Works. The southern limit of the aquatic survey area for the canal was Denham Deep Lock, and for the river was the confluence of the River Colne and the River Misbourne (see Figure 2, page 20).

Sections of the River Misbourne and the River Chess were within the terrestrial survey area and are discussed in Section 5.

The aquatic survey area is part of a complex stretch of waterways which comprises the Grand Union Canal, the River Colne, and a system of man-made lakes that were formerly gravel pits. The Maple Lodge Sewage Treatment Works outfall marks the northernmost limit of the survey area. The discharges from the sewage treatment works enter the Grand Union Canal by a concrete culvert which passes over the River Colne. The culvert has low sides where it passes over the river to allow the discharges to overflow in periods of high flow. In the northern part of the survey area, the canal and river run almost parallel, and in the central and southern part of the survey area, the river diverges away from the canal around the perimeter of several of the man-made lakes. Four locations were identified where the canal and the river join, three of which have weirs to regulate the flow of water from the canal into the river, and one has an interchange of canal and river water. The man-made lakes were not included in the survey area since they are fed by groundwater and there is minimal flooding from the river.

The Grand Union Canal

The Grand Union Canal is part of the central canal system that links London with Birmingham. It is a popular route for boats and a steady flow of houseboats was observed along the canal during the survey. Many houseboats were moored along the canal banks throughout the area but there were only a small number of permanent moorings. Visiting boats were permitted to moor for up to 14 days at one location before having to move a distance of either five locks or 5 miles, depending on which was closest. There were also leisure moorings in a marina near Harefield but there were no permanent moorings at this location. A well-maintained towpath provided good access along the western bank of the canal throughout the area (see Figure 4, page 30) where angling, walking, dog walking, cycling and jogging were taking place. Access to the east bank was variable due areas with dense vegetation and residences with private canal frontage.

Figure 4. Grand Union Canal

In the northern section of the survey area, approximately 100 m south of the sewage treatment works outfall, the west bank of the canal was reported to be a popular angling location. Between the sewage treatment works and the first lock to the south (Copper Mill Lock), the canal joins the River Colne and a weir regulates a one-way flow of water from the canal into the river. A row of houses is situated on a small area of land in between the canal and the river.

One of the two road bridges in the survey area is situated just south of Copper Mill Lock. Between the lock and the road bridge was a kayak slalom course and people were observed kayaking on the course during the survey (see Figure 5, page 31). The area near Copper Mill Lock was reported to be a popular angling location due to the convenient access to the canal and this was also the location of a permanent houseboat. South of Copper Mill Lock, Troy Cut is a narrow and partly overgrown arm of the canal where there is an interchange of canal and river water. Further south, the canal joins the river with a one-way flow of water into the river. During the survey, many boats were moored on the banks of a side-arm off the canal in this area.

Figure 5. The slalom course near Coppermill Lock

The next lock to the south is Black Jack's Lock, and immediately south of this, the canal joins the river with a weir regulating the flow of water into the river. A houseboat was permanently moored near to Black Jack's Lock. Further south at Widewater Lock, there is a road bridge providing convenient access to the canal and the west bank was reported to be popular with anglers.

Between Widewater Lock and the southernmost part of the aquatic survey area, there are many man-made lakes on either side of the canal. South of Widewater Lock, the east bank of the canal has eroded, joining the canal to a lake where a marina is located. The marina had approximately 220 non-residential moorings for cruisers and narrowboats. The southernmost part of the canal flowed through the Denham Country Park where a trail along the east bank of the canal provided good access.

The River Colne

The stretch of the River Colne within the survey area is approximately 5 to 10 metres wide. The water levels fluctuate seasonally and the river banks are predominantly overgrown with dense vegetation making them mostly inaccessible. No evidence of activities such as canoeing or boating was observed on the river, which was probably due to its small size and shallow water depth.

From the northern extent of the survey area, the river flows south, almost parallel with the Grand Union Canal. The river flows past the gardens of several residential properties where the occupants could access the river. There is public access to the river for a short stretch at Coppermill Lane. The river joins the canal at Troy Cut and this area was reported to be popular with anglers (see Figure 6, below). At Black Jack's Lock, the river diverges to the west of the canal around a series of man-made lakes. Further south, the river flows through Denham Country Park where the banks of the river are accessible via a footpath. In the country park, fishing platforms are provided for members of an angling club to fish the river.

Figure 6. Troy Cut

4.2 Commercial and hobby fisheries

No commercial or hobby fisheries were identified on the Grand Union Canal since the removal of fish and shellfish is not permitted. However, there were unconfirmed reports that setting nets for fish occasionally takes place in the canal and that canal boat owners set traps for signal crayfish for their own consumption.

On the River Colne, angling club members have authorised traps for removing crayfish, but this was reported to be for pest control rather than for consumption or for sale.

4.3 Angling

Members of two angling clubs fished the west bank of the Grand Union Canal within the survey area. The most popular angling locations along the canal were, approximately 100 m south of the sewage treatment works discharge outfall, near Copper Mill Lock and near Widewater Lock.

Another angling club had the rights to fish on the River Colne at Troy Cut and through the Denham Country Park. Anglers fished from wooden platforms in the country park and from the river bank at Troy Cut. No anglers were observed on the banks of the river during the survey. Under the Thames Region Fishery Bylaws, anglers were permitted to remove fish from the River Colne with a bag limit of two fish per person per day.

Anglers reported that they caught a variety of fish species including bream, roach, carp, tench, chub, pike, perch, grayling, gudgeon, and trout. The members of the angling clubs catch and release the fish. However, there were unconfirmed reports that fish (such as, pike, perch and carp) have been removed from the canal and river for consumption by anglers believed to be of Eastern European origin.

4.4 Maple Lodge Sewage Treatment Works

Activities at the Maple Lodge Sewage Treatment Works were investigated because liquid radioactive waste from the Amersham site is discharged via the sewer to this sewage works where it undergoes treatment. The treated water, which may still hold radionuclides in liquid phase, is subsequently released into the Grand Union Canal by a concrete culvert which passes over the River Colne. The culvert has low sides where it passes over the river to allow the discharges to overflow in periods of high flow.

During the sewage treatment process, solid matter settles out to form sludge. The sludge is transferred to a drying plant, de-watered to a consistency similar to damp peat, and loaded onto a lorry to be dispatched to farms. The dried sludge is referred to as sewage cake bio-solid and is used by farmers as a fertiliser at farms located between 10 km and 60 km from the sewage treatment works.

Workers at the Maple Lodge Sewage Treatment Works spent time in close proximity (<10 metres) to the sewage sludge and/or sewage cake bio-solids during processes such as maintenance, day-to-day operations of site equipment, sampling, rag removal, tank cleaning, managing site operations, debris removal, cleaning filters, unblocking pumps and pipes, moving sewage cake bio-solids on site, and loading, delivering and unloading sewage cake bio-solids.

4.5 Other pathways

No new pathways were identified during the survey. In 2009, a small plot of land was identified between the canal and the River Colne, where people were growing fruit and vegetables and were using water from the River Colne to irrigate the crops. In 2016, this plot of land was disused.

4.6 Food consumption data

The removal of fish and shellfish from the Grand Union Canal is not permitted. In response to reports of anglers (believed to be of Eastern European origin) taking fish from the canal, public information signs have been erected along the canal bank, with pictures warning that people are not allowed to take fish home, to spear fish or to cook fish. Canal boat owners were reported to set traps for signal crayfish for their own consumption. On the River Colne, anglers were permitted to remove two fish per person per day and the licensed trapping of signal crayfish was permitted.

No interviewees were consuming aquatic foods from the aquatic survey area. However, since there were unconfirmed reports that fish (such as, pike, perch and carp) and signal crayfish were being caught and consumed, it is suggested that consumption rates of 1 kg y^{-1} for coarse fish and 1 kg y^{-1} for signal crayfish are considered for radiological dose assessment purposes (see Annex 3).

Rainbow trout and signal crayfish were consumed from lakes within the terrestrial survey area. These foods are included in the terrestrial section of this report since the source of potential exposure is from the washout of gaseous discharges.

4.7 Canal and river bank occupancy

Canal bank occupancy rates for adults and children are presented in Table 3 and 4 respectively. Most of the activities on the canal bank were undertaken on the gravel towpath but people also used a strip of grass in between the edge of the canal and the towpath. The water level in the canal was controlled to prevent flooding and it was reported that the incidences of the canal water flooding onto the towpath have been very low. No activities were identified on the banks of the River Colne.

Adults' occupancy rates over canal banks

Table B presents a summary of the adults' occupancy rates on canal banks in the aquatic survey area. The table includes the mean occupancy rates for the high-rate groups and the observed 97.5th percentile rates.

Table B. Summary of adults' occupancy rates on canal banks					
Substrate	**Number of observations**	**Number of people in the high-rate group**	**Maximum of the high-rate group (h y^{-1})**	**Mean of the high-rate group (h y^{-1})**	**97.5th percentile (h y^{-1})**
Grass	1	1	190	190	Not applicable
Gravel towpath	33	3	860	530	464

The activities undertaken by people in the adult high-rate groups for occupancy on each of the substrates were:

- For grass: angling on the Grand Union Canal to the south of the sewage treatment works.
- For the gravel towpath: walking along the Grand Union Canal near Copper Mill Lock; dog walking along the Grand Union Canal at Widewater Lock.

Children's and infants' occupancy rates on canal banks

Table C presents a summary of the children's and infants' occupancy rates on canal banks in the aquatic survey area. The table includes the mean occupancy rates for the high-rate groups and the observed 97.5th percentile rates.

Table C. Summary of children's and infants' occupancy rates on canal banks					
Substrate	**Number of observations**	**Number of people in the high-rate group**	**Maximum of the high-rate group (h y^{-1})**	**Mean of the high-rate group (h y^{-1})**	**97.5th percentile (h y^{-1})**
Child age group (6 – 15 years old)					
Gravel towpath	3	3	98	67	96
Infant age group (0 - 5 years old)					
Gravel towpath	1	1	98	98	Not applicable

The activities undertaken by individuals in the child age group high-rate groups for occupancy on canal banks were:

- For the gravel towpath: cycling along the Grand Union Canal near Copper Mill Lock; water sports preparation on the Grand Union Canal near Copper Mill Lock.

The activities undertaken by individuals in the infant age group high-rate groups for occupancy on canal banks were:

- For the gravel towpath: cycling along the Grand Union Canal near Copper Mill Lock.

4.8 Gamma dose rate measurements

Gamma dose rate measurements were taken over two substrates. All measurements were taken at a height of 1 metre above the substrate. The results are presented in Table 5 and are summarised in Table D.

Table D. Summary of gamma dose rate measurements taken over canal banks			
Substrate	**Number of measurements taken**	**Minimum gamma dose rate at 1 metre[a] ($\mu Gy\ h^{-1}$)**	**Maximum gamma dose rate at 1 metre[a] ($\mu Gy\ h^{-1}$)**
Grass	4	0.049	0.060
Gravel	2	0.046	0.065

Notes
[a]These measurements have not been adjusted for background dose rates.

For comparison, an approximate value of 0.06 $\mu Gy\ h^{-1}$ would be expected over other substrates (EA, FSA, FSS, NRW, NIEA and SEPA, 2016).

4.9 Handling of fishing gear and sediment

The survey team did not interview anyone undertaking activities involving handling fishing gear or sediment in the aquatic survey area. Although it is not permitted to remove fish from the Grand Union Canal, there were unconfirmed reports that people were setting nets for fish and trapping crayfish. The handling of angling equipment is considered to be a very minor pathway. Therefore, as in previous surveys, data for this pathway were not collected.

4.10 Exposure to sewage sludge or sewage cake bio-solids

Table 6 shows the occupancy rates in close proximity (<10 m) to sewage sludge and to sewage cake bio-solids for the employees at the Maple Lodge Sewage Treatment Works.

The maximum occupancy rate in close proximity (<10 m) to sewage sludge was 1800 h y^{-1} for 12 employees who were undertaking maintenance at the sewage treatment works. The maximum occupancy rate in close proximity (<10 m) sewage cake bio-solids was 610 h y^{-1} for one employee who was moving sewage cake biosolids at the sewage treatment works.

4.11 Water based activities

Activities taking place in or on the water can lead to ingestion of water and/or inhalation of spray. These pathways are generally considered to be of minor radiological importance in comparison with other exposure pathways such as the ingestion of foods produced in the vicinity of a nuclear site. However, relevant data have been collected for consideration in dose assessments. Mean occupancy rates for the high-rate groups and 97.5th percentile rates have not been calculated.

Activities where there is a high likelihood of the individual's face submerging under water have been classified as activities 'in water', as they are more likely to lead to ingestion of water. All other activities have been classified as activities 'on water'.

Occupancy rates for activities taking place 'in water' and 'on water' in the aquatic survey area are presented in Table 7 for adults and Table 8 for children. No infants were identified spending time in or on the water.

Activities in the water

The only activity identified taking place in the water in the aquatic survey area was kayaking. Two observations were recorded for adults and two observations were recorded for the child age group. All four observations were 100 h y^{-1} for kayakers on the Grand Union Canal near Copper Mill Lock.

Activities on the water

The activities taking place on the water in the aquatic survey area were living on a boat and pleasure cruising. Nineteen observations were recorded for adults and one observation was recorded for the child age group. The highest occupancy rate for adults was 7300 h y^{-1} for one individual who was living on a boat on the Grand Union Canal near Copper Mill Lock. The only occupancy rate for the child age group was 260 h y^{-1} for a child who was pleasure cruising on the Grand Union Canal between Black Jack's Lock and Widewater Lock.

5 TERRESTRIAL RADIATION PATHWAYS

5.1 Terrestrial survey area

The terrestrial survey area (see Figure 3, page 21) covered the land and freshwater watercourses within 5 km of the site centre (National Grid Reference: SU 984 975).

The land in the terrestrial survey area is predominantly agricultural with scattered patches of woodland. The River Chess bisects the survey area from north-west to east and the River Misbourne bisects the area from west to south. The main population centre is the town of Amersham, located to the west and to the north-west of the GE Healthcare site. The town of Amersham is linked to the outskirts of Chesham near the north-western limit of the survey area. Immediately east of the site is the village of Little Chalfont and further south-east in the outer part of the survey area is the town of Chorleywood. The village of Chalfont St Giles is located to the south of the survey area.

Ten working farms were identified in the Amersham terrestrial survey area. Of these 10 farms:

- One produced beef cattle
- One produced beef cattle and lambs
- One produced beef cattle and cows' milk
- One produced beef cattle and pigs
- Two produced lambs
- One produced pigs and lambs
- One produced chicken eggs
- One produced crops
- One produced watercress

The arable crops included wheat, oil seed rape and oats. Grass (for silage and hay) was grown for use as animal feed on the farms on which they were produced.

Farmers and their families were noted to be consuming cows' milk, beef, pork, lamb and watercress produced on their own farms.

Two smallholdings were identified within the survey area. They produced pigs, lambs, beef cattle, chicken eggs, goose eggs and duck eggs, which were consumed and sold locally.

Eleven allotment sites were identified in the terrestrial survey area with a total of approximately 400 plots. Five allotment sites were located in Amersham, three were in Chesham, two were in Chorleywood and one was in Chalfont St Giles. Several of the allotment holders had more than one

plot and shared the produce with their extended family. A wide variety of fruit and vegetables were grown at the allotments and some individuals kept chickens for eggs. Fruit and vegetables were also grown at many private gardens in the survey area.

Four beekeepers who kept hives in the survey area were interviewed. The number of hives per beekeeper ranged from two to 12 and the yield of honey per hive ranged from 9.0 kg and 23 kg per year. The hives were located near Amersham, near Chalfont St Giles and near Chorleywood. The honey was consumed by the beekeepers' families and friends and sold through local shops.

The wild foods collected from within the survey area and consumed were blackberries, dandelion leaves, elderberries, elderflowers, hazel nuts, nettles, sloes and mushrooms. Shooting took place on many of the farms within the survey area and three organised game shoots were identified. Partridge, pheasant and rabbit were being shot and consumed.

The main bodies of freshwater in the terrestrial survey area that were potentially affected by the deposition of gaseous discharges were the River Misbourne, the River Chess and the associated lakes and ponds. Several of the lakes on the River Chess were stocked with rainbow trout and were fished by syndicates. Signal crayfish were present in the lakes and were being trapped for pest control purposes. The consumption of rainbow trout and signal crayfish was identified. The River Chess was easily accessible to the public and this was a popular location for families playing in the water in the summer months.

The consumption of groundwater by humans was identified. Two households situated in the east of the survey area used borehole water or well water as their sole domestic supply. The consumption rates of groundwater were not investigated since representative water intake values for assessment purposes are provided in Smith and Jones (2003). Livestock were supplied with mains water and had access to the River Chess and the River Misbourne to drink from.

5.2 Destination of food originating from the terrestrial survey area

Beef cattle and lambs were sold through Thame market. Beef cattle were also sold to private customers or were distributed nationally for breeding or slaughter. Lambs were also sold through Colchester market and sold at a butcher shop in Chelmsford. Pork was sold from farm shops within the survey area. Milk was sold to a national distribution chain. Arable crops were sold for national distribution. Honey was sold from local shops. Chicken eggs were sold from the door and at local shops. Watercress was sold from the door, through a local shop and through farmers' markets both locally and in London.

5.3 The potential transfer of contamination off-site by wildlife

The transfer of contamination off-site by wildlife was investigated. Representatives from the Amersham site reported that no control measures are taken against wildlife since wildlife can't access controlled areas on site. The site has routine pest control measures in place.

5.4 Food consumption data

Consumption data for locally produced foodstuffs potentially affected by deposition of gaseous discharges are presented in Tables 9 to 26 for adults and Tables 27 to 37 for children and infants. The mean consumption rates for the high-rate groups and the observed 97.5th percentile rates, calculated as described in Section 3.4, are given at the foot of each table.

In order to provide information relevant to monitoring and assessments studies, the consumption rate data collected during the survey were analysed to indicate the percentage that each food type contributed to each food group. The data are summarised in Table 38.

Adults' consumption rates

Consumption of locally produced foods was identified in the following 18 food groups: green vegetables; other vegetables; root vegetables; potato; domestic fruit; milk; cattle meat; pig meat; sheep meat; poultry; eggs; wild/free foods; rabbits/hares; honey; wild fungi; freshwater fish; freshwater crustaceans; freshwater plants. No consumption of venison was identified.

Table E presents a summary of the adults' consumption rates for the foods consumed from the terrestrial survey area. The table includes the mean consumption rates for the high-rate groups and the observed 97.5th percentile rates. For comparison, the table also includes mean consumption rates and 97.5th percentile consumption rates based on national data, which are referred to as 'generic' data in this report.

Table E. Summary of adults' consumption rates of foods from the terrestrial survey area

Food group	Number of observations	Number of high-rate consumers	Observed maximum for the high-rate group (kg y^{-1})	Observed minimum for the high-rate group (kg y^{-1})	Observed mean for the high-rate group (kg y^{-1})	Observed 97.5th percentile (kg y^{-1})	Generic mean* (kg y^{-1})	Generic 97.5th percentile* (kg y^{-1})
Green vegetables	87	30	26.2	9.7	16.4	26.0	15.0	45.0
Other vegetables	95	20	30.6	10.6	14.9	19.6	20.0	50.0
Root vegetables	74	6	57.8	23.0	41.6	57.8	10.0	40.0
Potato	65	9	124.7	45.9	72.4	93.6	50.0	120.0
Domestic fruit	93	27	34.6	11.6	19.0	29.7	20.0	75.0
Milk	3	3	177.7	79.5	132.0	175.7	95.0	240.0
Cattle meat	4	4	12.5	12.5	12.5	12.5	15.0	45.0
Pig meat	14	14	25.3	9.5	16.3	25.3	15.0	40.0
Sheep meat	14	12	17.0	7.5	13.0	17.0	8.0	25.0
Poultry	20	4	6.8	2.7	4.2	5.3	10.0	30.0
Eggs	64	28	41.6	16.8	21.7	30.8	8.5	25.0
Wild/free foods	49	10	5.0	1.8	3.0	4.4	7.0	25.0
Rabbits/hares	5	5	0.9	0.8	0.9	0.9	6.0	15.0
Honey	15	8	5.4	3.6	4.2	5.0	2.5	9.5
Wild fungi	8	3	2.7	1.0	1.7	2.5	3.0	10.0
Freshwater fish	7	2	8.8	8.8	8.8	8.8	Not determined	
Freshwater crustaceans	3	3	0.5	0.3	0.4	0.4	Not determined	
Freshwater plants	3	1	17.8	17.8	17.8	17.0	Not determined	

(*Generic rates based on data from Byrom *et al.*, 1995.)

One of the mean consumption rates for the high-rate groups was greater than the generic 97.5th percentile consumption rates, which was for root vegetables. Seven of the mean consumption rates for the high-rate groups exceeded the generic mean consumption rates. These were for green vegetables, root vegetables, potato, milk, pig meat, sheep meat and eggs. Two of the observed 97.5th percentile consumption rates exceeded the generic 97.5th percentile consumption rates. These were for root vegetables and eggs.

Children's and infants' consumption rates

Fourteen individuals in the child age group and 10 individuals in the infant age group were identified consuming foods from the terrestrial survey area. Table F presents a summary of children's and infants' consumption rates. The table includes the mean consumption rates for the high-rate groups and the observed 97.5th percentile rates. No generic data have been determined for the child or infant age

groups. In the child age group, no consumption of foods from the following food groups was identified: milk; pig meat; poultry; rabbits/hares; wild fungi; venison; freshwater crustaceans; freshwater plants. In the infant age group, no consumption of foods from the following food groups was identified: milk; pig meat; sheep meat; poultry; rabbits/hares; wild fungi; venison; freshwater fish; freshwater crustaceans; freshwater plants.

Table F. Summary of children's and infants' consumption rates of foods from the terrestrial survey area

Food group	Number of observations	Number of high-rate consumers	Observed maximum for the high-rate group (kg y^{-1})	Observed minimum for the high-rate group (kg y^{-1})	Observed mean for the high-rate group (kg y^{-1})	Observed 97.5th percentile (kg y^{-1})
Child age group (6 - 15 years old)						
Green vegetables	10	3	12.0	7.6	9.1	11.0
Other vegetables	12	8	4.8	2.3	3.5	4.8
Root vegetables	4	3	5.9	3.0	4.9	5.9
Potato	5	5	11.1	3.8	5.7	10.5
Domestic fruit	10	7	10.3	3.6	6.2	9.7
Cattle meat	4	4	12.5	9.4	10.9	12.5
Sheep meat	1	1	7.9	7.9	7.9	Not applicable
Eggs	8	6	16.8	5.9	9.5	15.7
Wild/free foods	7	6	1.0	0.4	0.7	1.0
Honey	6	5	4.1	3.0	3.6	4.1
Freshwater fish	4	4	0.4	0.3	0.4	0.4
Infant age group (0 - 5 years old)						
Green vegetables	8	5	2.8	1.0	1.7	2.7
Other vegetables	10	6	3.8	1.5	2.3	3.5
Root vegetables	5	4	2.4	1.0	1.5	2.3
Potato	4	3	4.9	2.5	3.4	4.7
Domestic fruit	8	6	3.8	1.3	2.1	3.5
Cattle meat	1	1	6.2	6.2	6.2	Not applicable
Eggs	3	2	11.9	11.9	11.9	11.9
Wild/free foods	3	3	0.3	0.1	0.2	0.3
Honey	1	1	2.0	2.0	2.0	Not applicable

5.5 Water based activities

Occupancy 'in' or 'on' freshwater within the terrestrial survey area (i.e. water potentially subject only to the washout of gaseous discharges and not to liquid discharges) is considered to be of very minor radiological importance compared to occupancy 'in' or 'on' water in the aquatic survey area. Activities identified 'on' freshwater in the terrestrial survey area included fly fishing from a punt on a trout lake,

and wading in watercress beds. Occupancy rates were obtained for one person who was fly fishing, which was 45 h y^{-1}, and for one person who was wading in watercress beds, which was 410 h y^{-1}. People were also identified playing in the River Chess but no data was collected.

6 DIRECT RADIATION PATHWAYS

6.1 Direct radiation survey area

The direct radiation survey area (see Figure 3, page 21) covered all land within 1 km of the Amersham nuclear licensed site boundary. The occupancy data collected from the direct radiation area is also applicable to inhalation and external exposure arising from gaseous releases from the site. The direct radiation survey area is described below, clockwise, from north to north-west.

A residential area comprising four-storey flats, houses, an infant school and a church is located immediately to the north of the site, beyond which is a small business park and a combined nursery and infant school. The remainder of the land to the north of the survey area is agricultural with one working farm.

A lane runs along the eastern perimeter of the site along which, residential properties, a pub and a church are located. The densely populated village of Little Chalfont is located further to the east. In addition to residential properties, the village has a secondary school, several shopping areas, large commercial organisations, and a train station.

Two occupied residential properties and one unoccupied property are located close to the southern boundary of the Amersham site. Beyond these properties, the land to the south and south-west is predominantly agricultural with the exception of a residential area located at the outer limit of the survey area to the south-west.

Residential properties are located along a lane that runs along the western boundary of the site. An allotment site with approximately 30 plots is located further to the west where people grew a variety of fruit and vegetables. The outskirts of Amersham town occupies the outer part of the survey area to the west and north-west. This area consists of residential properties, two secondary schools, a college, a combined nursery and infant school, two industrial estates, shops, commercial organisations and a pub.

6.2 Residential activities

Parts of the direct radiation survey area are densely populated. Interviews were conducted at 44 residences, 18 of which included families with children. Two of these residences were businesses where people were living and working. Twenty-five of the properties where interviews were conducted were within the 0 – 0.25 km zone, eight properties were within the >0.25 – 0.5 km zone and 11 properties were within the >0.5 – 1.0 km zone.

6.3 Leisure and educational activities

A variety of leisure activities were identified taking place within the direct radiation survey area, particularly in the densely populated areas. Several churches in the survey area provided regular church services and were also used for classes and group meetings. In the village of Little Chalfont, there were many cafes, restaurants, local shops, a library, clubs and a village hall. Throughout the survey area there were numerous lanes and footpaths which were used by walkers, dog walkers and joggers. To the west of the site there was a well tended allotment site.

Six schools and a college were identified in the direct radiation survey area. One infant school was in the 0 – 0.25 km zone to the north of the Amersham site. In the >0.25 – 0.5 km zone, one combined nursery and infant school was located to the north-east of the site and one secondary school was located to the east. In the >0.5 – 1 km zone, there were two secondary schools, one college and one combined nursery and infant school located to the west.

6.4 Commercial activities

There were numerous businesses in the direct radiation survey area. To the north and east of the site there was a business park with a warehouse and office units, a public house, shops, offices, restaurants and cafes. To the west of the site, on the outskirts of Amersham, there were a public house, shops, commercial organisations, and two industrial estates, with warehouses and business units.

The activities of Amersham site employees and contractors while at work were not considered in the direct radiation survey, as radiation workers are subject to different radiation protection criteria.

6.5 Occupancy rates

Table 39 presents indoor, outdoor and total occupancy data for adults, children and infants. An analysis of the data by distance zones and occupancy rates is shown in Table 40. A summary of occupancy rates in the direct radiation survey area is presented in Table G. Where generic data for large groups of people were collected, for example employees of businesses, only representative examples have been included in the data presented.

Table G. Summary of direct radiation occupancy rates

Zone	Number of observations	Highest indoor occupancy (h y^{-1})	Highest outdoor occupancy (h y^{-1})	Highest total occupancy (h y^{-1})
0 - 0.25 km	188	7937	2920	8395
>0.25 - 0.5 km	40	8395	1053	8604
>0.5 - 1.0 km	50	8123	2864	8223

0 - 0.25 km from the nuclear licensed site boundary

Occupancy data for 188 individuals in the 0 - 0.25 km zone were included in the analysis. The observations were for 72 residents, 114 people who were working in the area, and two people who were visiting family in the area. Three different residents had the highest indoor, outdoor and total occupancy rates.

>0.25 - 0.5 km from the nuclear licensed site boundary

Occupancy data for 40 individuals in the >0.25 - 0.5 km zone were included in the analysis. The observations were for 20 residents, 12 people who were working in the area, and eight people who were tending their allotment plots. Three different residents had the highest indoor, outdoor and total occupancy rates.

>0.5 - 1.0 km from the nuclear licensed site boundary

Occupancy data for 50 people in the >0.5 - 1.0 km zone were included in the analysis. The observations were for 34 residents and 16 people who were working in the area. Three residents had the same highest total occupancy rate, two of which had the joint highest indoor occupancy rate. A different resident had the highest outdoor occupancy rate.

6.6 Gamma dose rate measurements

Gamma dose rate measurements were taken indoors and outdoors at many properties where interviews were conducted in the Amersham direct radiation survey area. Gamma dose date measurements were not taken at properties where the interviews were conducted outdoors. Outdoor measurements were taken approximately 5 to 10 metres from the nearest building, and where possible, were taken over grass. Gamma dose rate measurements over grass were taken at locations further than 5 km from the site centre to obtain background dose rates. All measurements were taken at a height of 1 metre above the substrate using a Mini 600 Series Type 6-81 Environmental Radiation Meter with a compensated Geiger-Müller tube. The indoor and outdoor measurements have not been adjusted for background dose rates. The results are presented in Table 41 and are summarised in Table H.

Table H. Summary of gamma dose rate measurements taken indoors and outdoors at properties in the direct radiation survey area			
Substrate	**Number of measurements taken**	**Minimum gamma dose rate at 1 metre (µGy h^{-1})**	**Maximum gamma dose rate at 1 metre (µGy h^{-1})**
Indoor measurements[a]			
Concrete	23	0.054	0.103
Wood	6	0.058	0.101
Outdoor measurements[a]			
Concrete	16	0.060	0.086
Grass	26	0.063	0.102
Stones	2	0.066	0.082
Tarmac	4	0.067	0.091
Background measurements			
Grass	2	0.061	0.073
Mud	1	0.058	

Notes
[a]These measurements have not been adjusted for background dose rates.

Of the 29 measurements taken indoors at properties, 17 were higher than the maximum background reading, and of the 48 measurements taken outdoors at properties, 17 were higher than the maximum background reading.

The gamma dose rate measurements can be compared with readings taken by the RIMNET programme, which continuously monitors radiation levels at a network of 91 sampling stations distributed throughout the UK (www.gov.uk). The nearest RIMNET station to Amersham is at Heathrow Airport, which is approximately 25 km away. The ambient (*i.e*. background) gamma dose rates at Heathrow in the third quarter of 2016, which includes the period of the habits survey, ranged from 0.09 µGy h^{-1} to 0.20 µGy h^{-1}, so all the readings taken during the Amersham habits survey were within, or below, this range.

Estimates of the average annual doses from background radiation to the population across the UK, by county, have been made by Public Health England (previously the Radiation Protection Division of the Health Protection Agency), the most recent of these being a review conducted in 2005 (Watson *et al*, 2005). Further information on background radiation relevant to the geographic region covered in the Amersham habits survey can be found in the review.

7 USES OF HABITS DATA FOR DOSE ASSESSMENTS

7.1 Combined pathways

In determining habits data for the purposes of assessing radiological doses to the public, it may be necessary to consider a combination of pathways. Data are provided in Annex 1 and Annex 2 so that the full effect of combining pathways can be assessed for individual observations, given the concentrations and dose rates for a particular assessment. The rates for individuals in the high-rate groups are emboldened. In some circumstances, it will be possible to make simplifying assumptions and define the consumption and external exposure rates appropriate to a series of potential high-rate groups.

The most extensive combinations of pathways for adult dose assessment are shown in Table 42. Each of the 17 combinations shown in Table 42 represents an actual individual (or individuals) from Annex 1 who has positive data (irrespective of the magnitude), for each pathway marked with a cross. Other individuals from Annex 1 have combinations that are not listed in Table 42 because they have fewer pathways and a dose assessment for them would be adequately covered by one of the 17 listed combinations.

7.2 Foetal dose assessment

Dose assessment of the foetus was introduced routinely for the first time in the Radioactivity in Food and the Environment report for 2005 (EA, EHS, FSA and SEPA, 2006), following the publication of recommendations by the Radiation Protection Division of the Health Protection Agency (National Radiological Protection Board, 2005). The adopted approach is to use the consumption and occupancy data for women of childbearing age in order to calculate the potential dose to the foetus. Therefore, consumption and occupancy data collected during the Amersham habits survey for females of childbearing age are presented in Annex 5. The Office of National Statistics classifies women to be of childbearing age if they are between 15 – 44 years old (www.ons.gov.uk); this age range has been used in Annex 5. It was not possible to collect ages for all female observations during the habits survey. However, these females with unknown ages have been included in Annex 5 as they might be women of childbearing age.

7.3 Total dose assessment

The UK environment agencies and the Food Standards Agency have considered ways of using habits data to estimate total dose retrospectively. The adopted approach is to use the adult consumption and occupancy data collected in each habits survey to create a matrix with a series of habits profiles for each site. The National Dose Assessment Working Group (NDAWG) has considered this approach to

assessing retrospective total doses (Camplin *et al*, 2005) and has agreed that using habits profiles is an appropriate approach. The method used to estimate total dose integrated across pathways is provided in the RIFE reports (e.g. EA, FSA, FSS, NRW, NIEA and SEPA, 2016).

The relevant matrix for the adults' profiled habits data is shown in Annex 6. Additionally, profiles have been created for the child and infant age groups, and for women of childbearing age. These are shown in Annexes 7, 8, and 9, respectively. Most of the groups used for the pathways in the matrices are exactly analogous to the groups used throughout this habits survey report, although the names used are slightly different, for example 'Fruit – Domestic' rather than 'Domestic fruit'. However, in order to increase the robustness of the total dose assessments, some of the groups that are used throughout the rest of this report have been amalgamated together for use in the matrices. These are indicated in the notes at the foot of each matrix, where applicable. The 'Plume pathways' are related to inhalation and external exposure arising from gaseous discharges and use the total of the individuals' indoor and outdoor occupancy rates for each of the direct radiation zones. The 'Direct' pathway is expressed as the proportion of the profile members who are exposed to direct radiation.

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8 COMPARISONS WITH THE PREVIOUS SURVEY

The results from this 2016 survey are compared below with results from the last habits survey undertaken at Amersham in 2009. The aquatic, terrestrial and direct radiation survey areas in the 2016 survey were the same as those in the 2009 survey. The comparison of occupancy rates in the direct radiation area is for all age groups combined. All other comparisons are for adults only.

8.1 Aquatic survey area

The types of activities identified in the aquatic survey area in 2016 were similar to those identified in 2009. In both years, no commercial or hobby fisheries were identified on the Grand Union Canal since the removal of fish and shellfish is not permitted. There were unconfirmed reports in both years that setting nets for fish took place in the canal, that anglers (believed to be of Eastern European origin) took fish for consumption, and that canal boat owners set traps for signal crayfish for their own consumption. In 2016, the number of reports of people setting traps and consuming signal crayfish had increased compared with 2009. In both years, on the River Colne, anglers were permitted to remove two fish per person per day and the licensed trapping of signal crayfish was permitted. The consumption of fruit and vegetables grown on land in the aquatic survey area which was irrigated with water from the River Colne was identified in 2009, but in 2016, the land was disused.

No interviewees were consuming foods from the aquatic survey area in 2009 and 2016. However, since in both years there were unconfirmed reports that coarse fish were being caught and consumed, it was suggested that a consumption rate of 1 kg y^{-1} for coarse fish was considered for use in radiological dose assessments. In 2016, since there were more reports of signal crayfish consumption than in 2009, it was also suggested that 1 kg y^{-1} for signal crayfish is considered for use in dose assessments.

In 2009 and in 2016, occupancy rates for adults were recorded over the same substrates; grass and the gravel towpath. In both years, activities were identified along the Grand Union Canal. In 2009, two people were identified angling on the River Colne, but in 2016, no activities were identified on the River Colne.

The following activities were undertaken by the individuals in the adult high-rate groups on canal and river banks:

- In 2009: angling, sitting on a chair, angling and walking.
- In 2016: angling, walking and dog walking.

In 2009 and 2016, no activities involving handling fishing gear or sediment were identified.

A comparison between the 2009 and 2016 occupancy rates over canal and river bank substrates for adults is shown in Table I.

Table I. Comparison between 2009 and 2016 occupancy rates on canal and river banks for adults

	2009			2016		
Substrate	**Number in high-rate group**	**Maximum occupancy rate (h y^{-1})**	**Mean occupancy rate for the high-rate group (h y^{-1})**	**Number in high-rate group**	**Maximum occupancy rate (h y^{-1})**	**Mean occupancy rate for the high-rate group (h y^{-1})**
Grass	3	200	183	1	190	190
Gravel towpath	2	1260	1086	3	860	530

In 2016, compared to 2009, the mean occupancy rate for the adult high-rate group was similar for grass and decreased significantly for occupancy on the gravel towpath. This decrease was because a high-rate angler was recorded in 2009 but was not identified in 2016.

For activities taking place in the water in the aquatic survey area, the maximum adult occupancy rate increased from 50 h y^{-1} in 2009, for a person who was kayaking on the Grand Union Canal near Copper Mill Lock, to 100 h y^{-1} in 2016, for two people who were kayaking at the same location. Kayaking is classified as an activity 'in water' as it is likely to lead to ingestion of water.

For activities taking place on the water in the aquatic survey area, the maximum adult occupancy rate was 7300 h y^{-1} in both years. In 2009, this was for two people who were living on a boat on the Grand Union Canal near Black Jack's Lock, and in 2016, this was for one person who was living on a boat on the Grand Union Canal near Copper Mill Lock.

8.2 Terrestrial survey area

In 2016, farming activities in the terrestrial survey area were broadly similar to those identified in 2009, with beef cattle, milk, pigs, lambs, chicken eggs, arable crops and watercress being produced in both years. The main difference was that five farms that were producing goats' milk, geese, beef cattle, lambs and hay in 2009, were no longer operating in 2016.

In 2009, three smallholdings were identified, and in 2016, one of these had stopped farming. The two remaining smallholdings produced pigs, lambs, beef cattle, chicken eggs, goose eggs and duck eggs in both years, but in 2016, one of the smallholdings no longer produced geese. In 2009, two households were identified who kept goats and consumed goats' milk, but in 2016, one of these families had moved

away from the area. Other activities in the terrestrial survey area, including growing fruit and vegetables in gardens and on allotment sites, beekeeping, shooting on farmland, and the collection of wild/free foods, were identified in both surveys.

The mean consumption rates for the adult high-rate groups for terrestrial food groups from the 2009 and 2016 surveys are shown in Table J.

Table J. Comparison between 2009 and 2016 mean consumption rates for the adult high-rate groups for terrestrial food groups (kg y^{-1} and l y^{-1})

Food group	2009	2016
Green vegetables	38.9	16.4
Other vegetables	21.0	14.9
Root vegetables	33.6	41.6
Potato	71.1	72.4
Domestic fruit	28.7	19.0
Milk	352.6	132.0
Cattle Meat	11.8	12.5
Pig meat	88.4	16.3
Sheep meat	18.2	13.0
Poultry	12.2	4.2
Eggs	34.3	21.7
Wild/free foods	2.6	3.0
Rabbits/hares	1.9	0.9
Honey	5.5	4.2
Wild fungi	1.9	1.7
Venison	10.2	Not identified
Freshwater fish	7.1	8.8
Freshwater crustaceans	0.1	0.4
Freshwater plants	31.7	17.8

In 2016, compared to 2009, the mean consumption rates for the adult high-rate groups decreased in the following 12 food groups: green vegetables; other vegetables; domestic fruit; milk; pig meat; sheep meat; poultry; eggs; rabbits/hares; honey; wild fungi; freshwater plants. The mean consumption rates for the adult high-rate groups increased in 2015 in the following six food groups: root vegetables; potatoes; cattle meat; wild/free foods; freshwater fish; freshwater crustaceans. The consumption of venison was identified in 2009 but not in 2016.

The most significant changes in consumption rates were the decreases in the consumption of foods from the following food groups: green vegetables; milk; pig meat; poultry.

The cessation of the consumption of venison was because the two people who consumed venison in 2009 had moved away from the area in 2016. The decrease in the consumption rate of milk was due to a farming family that had reduced their consumption of milk in 2016, and a family who kept goats for

milk in 2009 who had moved away from the area by 2016. The consumption of poultry reduced in 2016 because two households that were consuming large quantities of poultry in 2009 had moved away from the area, and a farming family had significantly reduced their consumption of chicken in 2016. The large decrease in the consumption of pork was due to a farming family who were consuming significantly less pork in 2016. No specific reasons were identified for the other changes in consumption rates.

The consumption of groundwater by humans and the consumption of river water by livestock was identified in both 2009 and 2016.

8.3 Direct radiation survey area

Activities identified in the direct radiation survey area in 2009 and 2016 were similar and included people residing, working and undertaking recreational activities.

A comparison between the 2009 and 2016 direct radiation occupancy rates for all age groups combined, by zone, is presented in Table K.

Table K. Comparison between 2009 and 2016 direct radiation occupancy rates for all age groups combined (h y^{-1})

	2009	**2016**
0 - 0.25 km zone		
Highest indoor	8708	7937
Highest outdoor	1825	2920
Highest total	8618	8395
>0.25 - 0.5 km zone		
Highest indoor	8552	8395
Highest outdoor	960	1053
Highest total	8448	8604
>0.5 - 1.0 km zone		
Highest indoor	8526	8123
Highest outdoor	2555	2864
Highest total	8422	8223

In 2009 and 2016, the highest indoor, outdoor and total occupancy rates in all three zones were for residents.

In the direct radiation survey area, 10 sets of gamma dose measurements taken in 2016 can be compared with those taken at the same properties in 2009. These data are shown in Table L.

Table L. Comparison between 2009 and 2016 gamma dose rates (μGy h^{-1})				
	Indoor		Outdoor	
Location	2009	2016	2009	2016
Residence 2	0.067	0.061	0.073	0.066
Residence 5	0.088	Not taken	0.097	0.091
Residence 7	0.082	0.077	0.072	0.067
Residence 8	Not taken	0.079	0.097	0.078
Residence 10	0.081	0.074	0.072	0.070
Residence 11	0.081	0.074	0.082	0.075
Residence 12	0.057	Not taken	0.069	0.070
Residence 14	0.107	0.087	0.080	0.065
Residence 17	0.085	0.081	0.076	0.102
Residence 30	Not taken	0.090	0.082	0.078

Notes
These measurements have not been adjusted for background dose rates.
The locations correspond to those in Table 41.

Most of the gamma dose rates taken in 2016 were lower than those taken at the same properties in 2009.

9 MAIN FINDINGS

The survey investigated three potential sources of public radiation exposure from the Amersham site, which were:

- Discharges of liquid radioactive waste via the sewers and sewage treatment works to the Grand Union Canal and the River Colne
- Discharges of gaseous radioactive waste to the atmosphere
- Emissions of direct radiation

Information was obtained by conducting interviews with members of the public including, for example, anglers, people spending time on canal banks, farmers, allotment holders, beekeepers, and people spending time within the direct radiation survey area. These people were targeted because their diet and habits may cause them to be exposed to radioactivity from the site. However, it should be noted that the most exposed people can only be defined with the outcome of a dose assessment. Data for 480 individuals are presented in this report. All consumption rates recorded are only for foods produced, collected or caught from within the survey areas as defined in Section 2.3. The consumption and occupancy rates in this section are presented to two significant figures.

9.1 Aquatic survey area

No interviewees were consuming aquatic foods from the aquatic survey area. However, there were unconfirmed reports that fish (such as, pike, perch and carp) have been removed from the canal and river and consumed by anglers, and that signal crayfish were being caught in the canal and consumed by houseboat occupants. Therefore, it is suggested that consumption rates of 1 kg y^{-1} of coarse fish and 1 kg y^{-1} of signal crayfish are considered for radiological assessment purposes (see Annex 3).

The mean occupancy rates for the adult high-rate groups over the separate substrates were:

- 190 h y^{-1} for grass
- 530 h y^{-1} for the gravel towpath

No activities involving handling fishing gear or sediment in the aquatic survey area were identified.

The maximum adult occupancy rates for water based activities were:

- 100 h y^{-1} for ‘in water’
- 7300 h y^{-1} for ‘on water’

Individuals in the child and infant age groups were recorded undertaking activities in the aquatic survey area.

9.2 Terrestrial survey area

The mean consumption rates for the adult high-rate groups for the separate consumption pathways for foods potentially affected by gaseous discharges were:

- 16 kg y^{-1} for green vegetables
- 15 kg y^{-1} for other vegetables
- 42 kg y^{-1} for root vegetables
- 72 kg y^{-1} for potato
- 19 kg y^{-1} for domestic fruit
- 130 l y^{-1} for milk
- 13 kg y^{-1} for cattle meat
- 16 kg y^{-1} for pig meat
- 13 kg y^{-1} for sheep meat
- 4.2 kg y^{-1} for poultry
- 22 kg y^{-1} for eggs
- 3.0 kg y^{-1} for wild/free foods
- 0.9 kg y^{-1} for rabbits/hares
- 4.2 kg y^{-1} for honey
- 1.7 kg y^{-1} for wild fungi
- 8.8 kg y^{-1} for freshwater fish
- 0.4 kg y^{-1} for freshwater crustaceans
- 18 kg y^{-1} for freshwater plants

The consumption of terrestrial foodstuffs by individuals in the child and infant age groups was also recorded.

The consumption of groundwater by humans and livestock was identified. One household used well water and one household used borehole water as their domestic supply. Livestock were identified drinking water from the River Chess and the River Misbourne.

The transfer of contamination off-site by wildlife was investigated. Representatives from the Amersham site reported no control measures are taken against wildlife since wildlife can't access controlled areas on site. The site has routine pest control measures in place.

Activities identified 'in' and 'on' freshwater in the terrestrial survey area included fly fishing from a punt on a trout lake, wading in watercress beds, and families playing in the River Chess.

9.3 Direct radiation survey area

The highest indoor and total occupancy rates in the 0 – 0.25 km zone and in the >0.25 – 0.5 km zone were for different residents. In the >0.5 – 1.0 km zone, three residents had the same highest total occupancy rate, two of which had the joint highest indoor occupancy rate. A different resident had the highest outdoor occupancy rate.

The highest indoor, outdoor and total occupancy rates recorded for each zone were:

0 - 0.25 km zone

- 7900 h y^{-1} for the indoor occupancy rate
- 2900 h y^{-1} for the outdoor occupancy rate
- 8400 h y^{-1} for the total occupancy rate

>0.25 - 0.5 km zone

- 8400 h y^{-1} for the indoor occupancy rate
- 1100 h y^{-1} for the outdoor occupancy rate
- 8600 h y^{-1} for the total occupancy rate

>0.5 – 1.0 km zone

- 8100 h y^{-1} for the indoor occupancy rate
- 2900 h y^{-1} for the outdoor occupancy rate
- 8200 h y^{-1} for the total occupancy rate

10 HABITS SURVEY INFORMATION FOR CONSIDERATION IN THE SELECTION OF SAMPLES AND MEASUREMENTS FOR MONITORING PROGRAMMES

Habits surveys provide site-specific information on the consumption of locally produced foods and the location and types of activities which may affect the public's exposure to radiation. This information can be used to help in the selection of samples and measurements for the monitoring programmes by identifying foods that are consumed at high rates and the locations where people spend high amounts of time.

In England and Wales, the monitoring programme for radioactivity in food is undertaken by the Food Standards Agency, and the monitoring programme for radioactivity in the environment is conducted by the Environment Agency. The results of these programmes are published annually in the RIFE reports (e.g. EA, FSA, FSS, NRW, NIEA and SEPA, 2016).

In 2013, the Food Standards Agency completed a public consultation to review the way that they monitor radioactivity in food (FSA, 2012 and 2013). The outcome of the consultation was to implement a revised monitoring programme in 2014, with reductions in sampling and analysis of some foods that were considered to represent a very low radiological risk.

10.1 Summary of the monitoring programmes for Amersham

The 2015 monitoring programmes relevant to the Amersham area included the samples and measurements listed below. The location names, foods and substrate classifications are taken directly from RIFE. Some of the samples and measurements taken for the monitoring programmes may be from outside the survey areas used for the 2016 Amersham habits survey.

Aquatic samples

Food and environmental samples

Sample	***Location***
Flounder	Woolwich Reach
Sediment	River Colne (Grand Union Canal)
Sediment	Upstream of outfall (Grand Union Canal)
Freshwater	Maple Cross
Freshwater	Upstream of outfall (Grand Union Canal)
Freshwater	River Chess
Freshwater	River Misbourne – upstream
Freshwater	River Misbourne – downstream
Crude effluent	Maple Lodge Sewage Treatment Works
Final effluent	Maple Lodge Sewage Treatment Works

Gamma dose rate measurements over sediments

Location	*Substrate*
Grand Union Canal	Grass and mud
Grand Union Canal	Grass

Terrestrial samples

Milk
Apples
Wheat
Grass
Soil

10.2 Information from the 2016 Amersham habits survey for use in the selection of samples and measurements for monitoring programmes

Food Standards Agency monitoring

The following foods were either consumed in the largest quantities in their food groups or were the only food in their food group and could be considered when selecting samples for the Food Standards Agency monitoring programme.

Food	*Food Group*
Courgette	Green vegetables
Tomato	Other vegetables
Onion	Root vegetables
Potato	Potato
Strawberry	Domestic fruit
Goats' milk	Milk
Beef	Cattle meat
Pork	Pig meat
Lamb	Sheep meat
Pheasant	Poultry
Chicken egg	Eggs
Blackberry	Wild/free foods
Rabbit	Rabbits/hares
Honey	Honey
Mushroom	Wild fungi
Rainbow trout	Freshwater fish
Crayfish	Freshwater crustaceans
Watercress	Freshwater plants

Environment Agency monitoring

The current environmental monitoring programme adequately covers the Amersham area and no changes to this are suggested.

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Table 1. Survey coverage

Group	Criteria	Estimate of complete coverage	Number for whom positive data was obtained	Coverage for positive observations	Notes
SUMMARY OF ALL PATHWAYS					
All potential interviewees in the Amersham aquatic, terrestrial and direct radiation survey areas.	Number of people resident in the terrestrial survey area (excluding those resident in the direct radiation survey area) (See **(B) TERRESTRIAL PATHWAYS**)	44,000[a]	107[b]	0.2%	The survey targeted individuals who were potentially the most exposed, mostly producers of local foods such as farmers and allotment holders.
	Number of people resident in the direct radiation survey area (See **(C) DIRECT RADIATION PATHWAYS**)	5,000	134[b]	3%	Interviews were conducted at 44 residences.
	Number of people employed, visiting and undertaking leisure actvities in the direct radiation survey area (See **(C) DIRECT RADIATION PATHWAYS**)	U	149[b]	U	Excluding people living in the direct radiation survey area and employees and contractors of the Amersham site.
	Number of people effected by liquid discharges (excluding those assigned to other categories above) (See **(A) AQUATIC PATHWAYS**)	U	90[b]	U	
	Total for aquatic, terrestrial and direct radiation survey areas	U	480[b]	U	
(A) AQUATIC PATHWAYS					
People using the canal bank including anglers and people walking etc.	Number of people undertaking activities on the canal bank in the aquatic survey area	U	40	U	
People undertaking activities in or on water (e.g. boating and kayaking)	Number of people undertaking activities in or on water in the aquatic survey area	U	21	U	

Table 1. Survey coverage

Group	Criteria	Estimate of complete coverage	Number for whom positive data was obtained	Coverage for positive observations	Notes
Permanent workers at the sewage treatment works	Number of people who primarily work in close proximity to the sewage, sewage sludge and sewage cake at the Maple Lodge Sewage Treatment Works	46	46	100	Other workers are in close proximity to sewage, sewage sludge and sewage cake for a small amount of time per year.
Fish and shellfish consumers (from waters subject to liquid discharges)	Number of people consuming fish and/or crustaceans from the aquatic survey area.	U	0	U	It was reported that coarse fish and signal crayfish were being consumed but no consumers were positively identified.
(B) TERRESTRIAL PATHWAYS					
Farmers	Number of farmers and their family members consuming food from the terrestrial survey area	40	32	80%	Ten farms were identified farming within the terrestrial survey area.
Allotment holders	Number of allotment holders and their family members consuming food from the terrestrial survey area	U	62	U	
Fish and shellfish consumers (from waters subject to gaseous discharges)	Number of people consuming fish and/or crustaceans from the terrestrial survey area.	U	11	U	Rainbow trout and signal crayfish were being caught in lakes in the terrestrial survey area and were consumed.
Beekeepers	Number of people consuming honey produced in the survey area	U	22	U	Four beekeepers were identified with hives in the survey area.
(C) DIRECT RADIATION PATHWAYS					
Residents	Number of residents in the Amersham survey area	4,000	126	3%	Interviews were conducted at 44 residences.

Table 1. Survey coverage

Group	Criteria	Estimate of complete coverage	Number for whom positive data was obtained	Coverage for positive observations	Notes
Employees	Number of people employed in the Amersham survey area	U	142	U	Interviews were conducted at seven businesses. Where generalised data for large buinesses were obtained, only a limited number of representative individuals have been included. Excluding people living in the direct radiation survey area and employees and contractors of the Amersham site.
Visitors and people undertaking leisure activities	Number of visitors to the Amersham survey area	U	10	U	
BREAKDOWN OF AGE GROUPS					
Adult	16-year-old and over	35000	426	1%	
Child	6-year-old to 15-year-old	6000	36	0.6%	
Infant	0 to 5-year-old	3000	18	0.6%	

Notes

[a] Estimate of the number of people resident in the 5 km terrestrial survey area based on data from www.ons.gov.uk.

[b] The number of people for whom positive data was obtained for pathways (A) and (B) and (C) will usually not equal the relevant totals in the summary of all pathways. This is because in sections (A), (B) and (C) some individuals may be counted two or more times, for example, someone who lives in the direct radiation area and consumes foods from the terrestrial survey area.

U = Unknown

Table 2. Typical food groups used in habits surveys

Food group	Examples of foods within the group
Green vegetables	Asparagus, broccoli, Brussels sprout, cabbage, calabrese, cauliflower, chard, courgette, cucumber, gherkin, globe artichoke, herbs, kale, leaf beet, lettuce, marrow, spinach
Other vegetables	Aubergine, broad bean, chilli pepper, French bean, kohl rabi, mangetout, pea, pepper, pumpkin, runner bean, sweetcorn, tomato
Root vegetables	Beetroot, carrot, celeriac, celery, chicory, fennel, garlic, Jerusalem artichoke, leek, onion, parsnip, radish, shallot, spring onion, swede, turnip
Potato	Potato
Domestic fruit	Apple, apricot, blackberry, blackcurrant, boysenberry, cherry, damson, fig, gooseberry, grape, greengage, huckleberry, loganberry, melon, nectarine, peach, pear, plum, raspberry, redcurrant, rhubarb, rowanberry, strawberry, tayberry, whitecurrant
Milk	Cows' milk, cream, goats' milk, yoghurt
Cattle meat[a]	Beef
Pig meat[a]	Pork
Sheep meat[a]	Lamb, mutton
Poultry[b]	Chicken, duck, goose, grouse, guinea fowl, partridge, pheasant, pigeon, turkey, woodcock
Eggs	Chicken egg, duck egg, goose egg
Wild/free foods	Blackberry, chestnut, crab apple, damson, dandelion root, elderberry, nettle, rowanberry, sloe
Honey	Honey
Wild fungi	Mushrooms, other edible fungi
Rabbits/Hares	Hare, rabbit
Venison[a]	Venison
Fish (sea)	Bass, brill, cod, common ling, dab, Dover sole, flounder, gurnard, haddock, hake, herring, lemon sole, mackerel, monkfish, mullet, plaice, pollack, rays, saithe, salmon, sea trout, sprat, turbot, whitebait, whiting, witch, cuttlefish[c], squid[c]
Fish (freshwater)	Brown trout, eel (river), perch, pike, rainbow trout, salmon (river)
Crustaceans	Brown crab, common lobster, crawfish, *Nephrops* , prawn, shrimp, spider crab, squat lobster, velvet swimming crab
Molluscs	Cockles, limpets, mussels, oysters, razor clam, scallops, whelks, winkles
Wildfowl[b]	Canada goose, greylag goose, mallard, pink-footed goose, pintail, shoveler, teal, wigeon

Notes

[a] Including offal

[b] Domesticated ducks and geese are classified as poultry. Wild ducks and geese are classified as wildfowl.

[c] Although squid and cuttlefish are molluscs, radiologically they are more akin to fish.

Table 3. Adults' occupancy rates over canal banks in the Amersham aquatic survey area (h y^{-1})

Person ID number	Location	Activity	Grass	Gravel towpath
1129/1/1	**Grand Union Canal - South of the Sewage Treatment Works**	**Angling**	**190**	-
1126/1/1	**Grand Union Canal - Near Copper Mill Lock**	**Walking**	-	**860**
1072/1/1	**Grand Union Canal - Widewater Lock**	**Dog walking**	-	**365**
1072/2/1	**Grand Union Canal - Widewater Lock**	**Dog walking**	-	**365**
1074/2/1	Grand Union Canal - Denham Deep Lock	Dog walking	-	245
1123/1/1	Grand Union Canal - Sewage Treatment Works Outfall	Angling	-	228
1075/1/1	Grand Union Canal - Black Jack's Lock	Walking	-	183
1130/1/1	Grand Union Canal - Near Copper Mill Lock	Dog walking	-	183
1131/1/1	Grand Union Canal	Cycling	-	156
1128/1/1	Grand Union Canal	Walking	-	140
1128/2/1	Grand Union Canal	Walking	-	140
1070/1/1	Grand Union Canal - Near Widewater Lock	Walking	-	137
1070/2/1	Grand Union Canal - Near Widewater Lock	Walking	-	137
1029/1/1	Grand Union Canal - Denham Deep Lock	Walking	-	104
1029/1/2	Grand Union Canal - Denham Deep Lock	Walking	-	104
1029/1/3	Grand Union Canal - Denham Deep Lock	Walking	-	104
1071/1/1	Grand Union Canal - Widewater Lock	Walking	-	104
1071/2/1	Grand Union Canal - Widewater Lock	Walking	-	104
1124/1/1	Grand Union Canal - Near Copper Mill Lock	Cycling	-	98
1074/3/1	Grand Union Canal - Denham Deep Lock	Walking	-	92
1124/1/1	Grand Union Canal - Near Copper Mill Lock	Dog walking	-	78
1131/2/1	Grand Union Canal	Cycling	-	78
1073/1/1	Grand Union Canal - Between Black Jack's Lock and Widewater Lock	Dog walking	-	52
1073/2/1	Grand Union Canal - Between Black Jack's Lock and Widewater Lock	Dog walking	-	52
1122/1/1	Grand Union Canal - Near Copper Mill Lock	Water sports preparation	-	52
1122/3/1	Grand Union Canal - Near Copper Mill Lock	Water sports preparation	-	52
1127/1/1	Grand Union Canal	Walking	-	52
1127/2/1	Grand Union Canal	Walking	-	52
1069/1/1	Grand Union Canal - Denham Deep Lock	Walking	-	35
1069/2/1	Grand Union Canal - Denham Deep Lock	Walking	-	35
1150/1/1	Grand Union Canal	Dog walking	-	24
1076/1/1	Grand Union Canal - Widewater Lock	Angling	-	21
1030/1/1	Grand Union Canal - Widewater Lock	Dog walking	-	12
1030/2/1	Grand Union Canal - Widewater Lock	Dog walking	-	12
1071/1/1	Grand Union Canal - Widewater Lock	Jogging	-	12
1077/1/1	Grand Union Canal - Widewater Lock	Walking	-	10

Notes

Emboldened observations are the high-rate individuals

The mean occupancy rate over grass for adults based on 1 high-rate observation is 190 h y^{-1}

The observed 97.5th percentile is not applicable for 1 observation

The mean occupancy rate over the gravel towpath for adults based on 3 high-rate observations is 530 h y^{-1}

The observed 97.5th percentile rate based on 33 observations is 464 h y^{-1}

No occupancy was identified over river banks in the survey area.

Table 4. Children's and infants' occupancy rates over canal banks in the Amersham aquatic survey area (h y $^{-1}$)

Child age group (6 - 15 years old)

Person ID number	Age	Location	Activity	Gravel towpath
1124/3/1	9	Grand Union Canal - Near Copper Mill Lock	Cycling	98
1122/2/1	12	Grand Union Canal - Near Copper Mill Lock	Water sports preparation	52
1122/4/1	15	Grand Union Canal - Near Copper Mill Lock	Water sports preparation	52

Notes

Emboldened observations are the high-rate individuals

The mean occupancy rate over the gravel towpath for the child age group based on 3 high-rate observations is 67 h y $^{-1}$

The observed 97.5th percentile rate based on 3 observations is 96 h y^{-1}

Infant age group (0 - 5 years old)

Person ID number	Age	Location	Activity	Gravel towpath
1124/2/1	5	Grand Union Canal - Near Copper Mill Lock	Cycling	98

Notes

Emboldened observations are the high-rate individuals

The mean occupancy rate over the gravel towpath for the infant age group based on 1 high-rate observation is 98 h y $^{-1}$

The observed 97.5th percentile is not applicable for 1 observation

Table 5. Gamma dose rate measurements over canal banks in the Amersham aquatic survey area (µGy h^{-1})

Location	National Grid Reference	Substrate	Gamma dose rate at 1 metre[a]
Grand Union Canal - Sewage Treatment Works Outfall	TQ 04191 91922	Grass	0.049
Grand Union Canal - Coppermill Lock	TQ 04047 91268	Grass	0.050
Grand Union Canal - Black Jack's Lock	TQ 04290 90385	Gravel	0.065
Grand Union Canal - Widewater Lock	TQ 04955 88808	Grass	0.050
Grand Union Canal - South of Widewater Lock	TQ 05178 87706	Gravel	0.046
Grand Union Canal - Denham Deep Lock	TQ 05294 86237	Grass	0.060

Notes

[a] These measurements have not been adjusted for background dose rates

Table 6. Occupancy rates in close proximity to sewage sludge or sewage cake bio-solids (h y^{-1})

Observation number	Activity	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-solids
1168/1/1 - 1168/1/12	Maintenance	1750	90
1168/2/1 - 1168/2/11	Day-to-day operations of site equipment, sampling, rag removal, tank cleaning	1700	0
1168/3/1 - 1168/3/6	Managing site operations	1140	0
1168/4/1	Debris removal, cleaning filters, unblocking pumps/pipes, sampling	850	17
1168/5/1	Moving sewage cake bio-solids on site	0	607
1168//6/1 - 1168/6/15[a]	Loading, delivering and unloading sewage cake bio-solids	0	276

Notes

[a]In addition to these employees, there were approximatley 15 employees doing this work for a small fraction of their working year.

Table 7. Adults' occupancy rates in and on water in the Amersham aquatic survey area (h y^{-1})

Person ID number	Location	Activity	In water	On water
1122/1/1	Grand Union Canal - Near Copper Mill Lock	Kayaking	104	-
1122/3/1	Grand Union Canal - Near Copper Mill Lock	Kayaking	104	-
1126/1/1	Grand Union Canal - Near Copper Mill Lock	Living on a boat	-	7296
1075/1/1	Grand Union Canal - Black Jack's Lock	Living on a boat	-	6029
1128/1/1	Grand Union Canal	Pleasure cruising	-	1540
1128/2/1	Grand Union Canal	Pleasure cruising	-	1540
1070/1/1	Grand Union Canal - Near Widewater Lock	Living on a boat	-	1397
1070/2/1	Grand Union Canal - Near Widewater Lock	Living on a boat	-	1397
1125/1/1	Grand Union Canal	Pleasure cruising	-	640
1125/2/1	Grand Union Canal	Pleasure cruising	-	640
1127/1/1	Grand Union Canal	Living on a boat	-	572
1127/2/1	Grand Union Canal	Living on a boat	-	572
1125/3/1	Grand Union Canal	Pleasure cruising	-	320
1125/4/1	Grand Union Canal	Pleasure cruising	-	320
1069/1/1	Grand Union Canal - Denham Deep Lock	Living on a boat	-	315
1069/2/1	Grand Union Canal - Denham Deep Lock	Living on a boat	-	315
1073/1/1	Grand Union Canal - Between Black Jack's Lock and Widewater Lock	Pleasure cruising	-	261
1073/2/1	Grand Union Canal - Between Black Jack's Lock and Widewater Lock	Pleasure cruising	-	261
1073/4/1	Grand Union Canal - Between Black Jack's Lock and Widewater Lock	Pleasure cruising	-	261
1077/1/1	Grand Union Canal - Widewater Lock	Living on a boat	-	200
1074/1/1	Grand Union Canal - Denham Deep Lock	Pleasure cruising	-	122

Table 8. Children's occupancy rates in and on water in the Amersham aquatic survey area (h y^{-1})

Child age group (6 - 15 years old)

Person ID number	Age	Location	Activity	In water	On water
1122/2/1	12	Grand Union Canal - Near Copper Mill Lock	Kayaking	104	-
1122/4/1	15	Grand Union Canal - Near Copper Mill Lock	Kayaking	104	-
1073/3/1	14	Grand Union Canal - Between Black Jack's Lock and Widewater Lock	Pleasure cruising	-	261

Table 9. Adults' consumption rates of green vegetables from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Artichoke	Asparagus	Broccoli	Brussel sprout	Cabbage	Calabrese	Cauliflower	Courgette	Cucumber	Herbs	Kale	Lettuce	Marrow	Rocket	Spinach	Total
1102/1/1	-	-	7.5	2.3	6.1	-	3.7	-	-	-	-	-	6.6	-	-	26.2
1102/2/1	-	-	7.5	2.3	6.1	-	3.7	-	-	-	-	-	6.6	-	-	26.2
1102/3/1	-	-	7.5	2.3	6.1	-	3.7	-	-	-	-	-	6.6	-	-	26.2
1154/1/1	-	1.6	2.6	5.5	-	-	-	7.4	6.8	-	-	-	-	-	1.4	25.1
1158/1/1	-	-	-	-	11.0	-	-	10.1	3.4	-	-	-	-	-	-	24.5
1158/2/1	-	-	-	-	11.0	-	-	10.1	3.4	-	-	-	-	-	-	24.5
1161/1/1	-	-	-	8.2	-	-	6.7	6.6	-	-	-	-	-	-	-	21.6
1161/2/1	-	-	-	8.2	-	-	6.7	6.6	-	-	-	-	-	-	-	21.6
1162/1/1	-	-	1.1	-	-	-	-	10.0	5.6	-	-	-	-	-	-	16.7
1162/2/1	-	-	1.1	-	-	-	-	10.0	5.6	-	-	-	-	-	-	16.7
1034/1/1	-	-	2.8	1.7	2.3	-	1.4	7.6	-	-	-	-	-	-	-	15.8
1034/2/1	-	-	2.8	1.7	2.3	-	1.4	7.6	-	-	-	-	-	-	-	15.8
1034/3/1	-	-	2.8	1.7	2.3	-	1.4	7.6	-	-	-	-	-	-	-	15.8
1034/4/1	-	-	2.8	1.7	2.3	-	1.4	7.6	-	-	-	-	-	-	-	15.8
1155/3/1	-	-	-	0.6	0.9	2.5	0.7	4.9	2.8	-	0.9	1.0	1.2	-	0.2	15.6
1155/4/1	-	-	-	0.6	0.9	2.5	0.7	4.9	2.8	-	0.9	1.0	1.2	-	0.2	15.6
1155/5/1	-	-	-	0.6	0.9	2.5	0.7	4.9	2.8	-	0.9	1.0	1.2	-	0.2	15.6
1159/1/1	-	-	-	-	5.0	-	-	-	-	-	-	-	8.2	-	-	13.2
1159/2/1	-	-	-	-	5.0	-	-	-	-	-	-	-	8.2	-	-	13.2
1162/3/1	-	-	0.8	-	-	-	-	7.5	4.2	-	-	-	-	-	-	12.5
1101/1/1	-	-	0.6	0.6	6.0	-	-	4.0	-	-	0.8	-	-	-	-	12.0
1101/2/1	-	-	0.6	0.6	6.0	-	-	4.0	-	-	0.8	-	-	-	-	12.0
1101/3/1	-	-	0.6	0.6	6.0	-	-	4.0	-	-	0.8	-	-	-	-	12.0
1101/4/1	-	-	0.6	0.6	6.0	-	-	4.0	-	-	0.8	-	-	-	-	12.0
1160/1/1	0.7	-	4.2	-	-	-	-	4.1	-	-	-	2.8	-	-	-	11.8
1160/2/1	0.7	-	4.2	-	-	-	-	4.1	-	-	-	2.8	-	-	-	11.8
1155/1/1	-	-	-	0.5	0.6	1.9	0.5	3.7	2.1	-	0.6	0.8	0.9	-	0.1	11.7
1155/2/1	-	-	-	0.5	0.6	1.9	0.5	3.7	2.1	-	0.6	0.8	0.9	-	0.1	11.7
1095/1/1	-	-	0.7	2.9	3.4	-	2.7	-	-	-	-	-	-	-	-	9.7
1095/2/1	-	-	0.7	2.9	3.4	-	2.7	-	-	-	-	-	-	-	-	9.7
1151/1/1	-	-	1.4	-	-	-	-	5.5	-	-	1.1	-	-	-	-	8.0
1151/2/1	-	-	1.4	-	-	-	-	5.5	-	-	1.1	-	-	-	-	8.0
1042/1/1	1.8	-	4.1	-	-	-	2.0	-	-	-	-	-	-	-	-	7.9
1042/2/1	1.8	-	4.1	-	-	-	2.0	-	-	-	-	-	-	-	-	7.9
1152/1/1	-	-	0.6	-	-	-	-	6.1	-	-	-	0.9	-	-	-	7.6
1152/2/1	-	-	0.6	-	-	-	-	6.1	-	-	-	0.9	-	-	-	7.6
1152/3/1	-	-	0.6	-	-	-	-	6.1	-	-	-	0.9	-	-	-	7.6

Table 9. Adults' consumption rates of green vegetables from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Artichoke	Asparagus	Broccoli	Brussel sprout	Cabbage	Calabrese	Cauliflower	Courgette	Cucumber	Herbs	Kale	Lettuce	Marrow	Rocket	Spinach	Total
1152/4/1	-	-	0.6	-	-	-	-	6.1	-	-	-	0.9	-	-	-	7.6
1046/1/1	-	-	-	-	-	-	-	-	5.1	-	1.8	-	-	-	-	6.9
1046/2/1	-	-	-	-	-	-	-	-	5.1	-	1.8	-	-	-	-	6.9
1157/1/1	-	-	-	-	2.6	-	-	3.7	-	-	-	-	-	-	-	6.2
1157/2/1	-	-	-	-	2.6	-	-	3.7	-	-	-	-	-	-	-	6.2
1096/1/1	-	-	-	-	-	-	-	2.0	-	-	1.6	0.7	-	0.8	0.6	5.7
1096/2/1	-	-	-	-	-	-	-	2.0	-	-	1.6	0.7	-	0.8	0.6	5.7
1023/1/1	-	-	1.2	-	1.5	-	1.2	-	-	1.2	-	-	-	-	-	5.2
1023/2/1	-	-	1.2	-	1.5	-	1.2	-	-	1.2	-	-	-	-	-	5.2
1098/1/1	-	-	-	-	2.1	-	1.7	-	-	-	-	0.8	-	-	-	4.6
1098/2/1	-	-	-	-	2.1	-	1.7	-	-	-	-	0.8	-	-	-	4.6
1036/1/1	-	-	-	-	-	-	-	2.6	-	-	-	2.0	-	-	-	4.5
1035/1/1	-	0.4	0.2	0.2	0.9	-	-	0.5	0.2	-	-	0.7	-	-	0.3	3.4
1035/1/2	-	0.4	0.2	0.2	0.9	-	-	0.5	0.2	-	-	0.7	-	-	0.3	3.4
1035/1/3	-	0.4	0.2	0.2	0.9	-	-	0.5	0.2	-	-	0.7	-	-	0.3	3.4
1035/1/4	-	0.4	0.2	0.2	0.9	-	-	0.5	0.2	-	-	0.7	-	-	0.3	3.4
1035/2/1	-	0.4	0.2	0.2	0.9	-	-	0.5	0.2	-	-	0.7	-	-	0.3	3.4
1035/2/2	-	0.4	0.2	0.2	0.9	-	-	0.5	0.2	-	-	0.7	-	-	0.3	3.4
1035/2/3	-	0.4	0.2	0.2	0.9	-	-	0.5	0.2	-	-	0.7	-	-	0.3	3.4
1035/2/4	-	0.4	0.2	0.2	0.9	-	-	0.5	0.2	-	-	0.7	-	-	0.3	3.4
1010/1/1	-	-	-	-	-	-	-	-	1.5	-	1.1	0.6	-	-	-	3.2
1010/2/1	-	-	-	-	-	-	-	-	1.5	-	1.1	0.6	-	-	-	3.2
1067/1/1	-	-	-	2.3	-	-	-	-	-	-	-	-	-	-	-	2.3
1067/2/1	-	-	-	2.3	-	-	-	-	-	-	-	-	-	-	-	2.3
1067/3/1	-	-	-	2.3	-	-	-	-	-	-	-	-	-	-	-	2.3
1067/4/1	-	-	-	2.3	-	-	-	-	-	-	-	-	-	-	-	2.3
1163/1/1	-	-	-	-	-	-	-	-	-	-	-	1.6	-	-	0.7	2.2
1163/2/1	-	-	-	-	-	-	-	-	-	-	-	1.6	-	-	0.7	2.2
1100/1/1	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	2.2
1100/2/1	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	2.2
1100/3/1	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	2.2
1100/4/1	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	2.2
1045/1/1	-	-	-	-	-	-	-	2.1	-	-	-	-	-	-	-	2.1
1045/2/1	-	-	-	-	-	-	-	2.1	-	-	-	-	-	-	-	2.1
1045/3/1	-	-	-	-	-	-	-	2.1	-	-	-	-	-	-	-	2.1
1045/4/1	-	-	-	-	-	-	-	2.1	-	-	-	-	-	-	-	2.1
1143/1/1	-	0.7	1.3	-	-	-	-	-	-	-	-	-	-	-	-	2.0

Table 9. Adults' consumption rates of green vegetables from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Artichoke	Asparagus	Broccoli	Brussel sprout	Cabbage	Calabrese	Cauliflower	Courgette	Cucumber	Herbs	Kale	Lettuce	Marrow	Rocket	Spinach	Total
1143/2/1	-	0.7	1.3	-	-	-	-	-	-	-	-	-	-	-	-	2.0
1060/1/1	-	-	-	-	-	-	-	1.1	-	-	-	-	-	-	-	1.1
1060/2/1	-	-	-	-	-	-	-	1.1	-	-	-	-	-	-	-	1.1
1145/1/1	-	-	-	-	-	-	-	0.8	-	-	-	-	-	-	-	0.8
1145/2/1	-	-	-	-	-	-	-	0.8	-	-	-	-	-	-	-	0.8
1145/3/1	-	-	-	-	-	-	-	0.8	-	-	-	-	-	-	-	0.8
1036/2/1	-	-	-	-	-	-	-	0.4	-	-	-	0.3	-	-	-	0.6
1036/3/1	-	-	-	-	-	-	-	0.4	-	-	-	0.3	-	-	-	0.6
1036/3/2	-	-	-	-	-	-	-	0.4	-	-	-	0.3	-	-	-	0.6
1121/1/1	-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-	0.6
1121/2/1	-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-	0.6
1121/3/1	-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-	0.6
1121/4/1	-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-	0.6

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of green vegetables for adults based on the 30 high-rate consumers is 16.4 kg y^{-1}

The observed 97.5th percentile rate based on 87 observations is 26.0 kg y^{-1}

Table 10. Adults' consumption rates of other vegetables from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Aubergine	Broad bean	French bean	Mangetout	Pea	Runner bean	Squash	Sweetcorn	Tomato	Total
1161/1/1	**-**	**10.2**	**10.2**	**-**	**-**	**10.2**	**-**	**-**	**-**	**30.6**
1161/2/1	**-**	**10.2**	**10.2**	**-**	**-**	**10.2**	**-**	**-**	**-**	**30.6**
1158/1/1	**-**	**-**	**-**	**-**	**-**	**6.1**	**-**	**2.1**	**11.4**	**19.6**
1158/2/1	**-**	**-**	**-**	**-**	**-**	**6.1**	**-**	**2.1**	**11.4**	**19.6**
1154/1/1	**6.1**	**-**	**0.1**	**-**	**-**	**4.1**	**3.6**	**2.8**	**1.8**	**18.5**
1160/1/1	**-**	**-**	**-**	**-**	**4.2**	**-**	**3.1**	**-**	**6.7**	**14.0**
1160/2/1	**-**	**-**	**-**	**-**	**4.2**	**-**	**3.1**	**-**	**6.7**	**14.0**
1155/3/1	**-**	**0.9**	**0.5**	**-**	**1.5**	**2.6**	**1.2**	**1.1**	**4.8**	**12.6**
1155/4/1	**-**	**0.9**	**0.5**	**-**	**1.5**	**2.6**	**1.2**	**1.1**	**4.8**	**12.6**
1155/5/1	**-**	**0.9**	**0.5**	**-**	**1.5**	**2.6**	**1.2**	**1.1**	**4.8**	**12.6**
1034/1/1	**-**	**1.7**	**1.3**	**-**	**1.7**	**2.5**	**-**	**-**	**4.8**	**12.1**
1034/2/1	**-**	**1.7**	**1.3**	**-**	**1.7**	**2.5**	**-**	**-**	**4.8**	**12.1**
1034/3/1	**-**	**1.7**	**1.3**	**-**	**1.7**	**2.5**	**-**	**-**	**4.8**	**12.1**
1034/4/1	**-**	**1.7**	**1.3**	**-**	**1.7**	**2.5**	**-**	**-**	**4.8**	**12.1**
1046/1/1	**-**	**-**	**-**	**-**	**-**	**6.8**	**-**	**-**	**4.5**	**11.3**
1046/2/1	**-**	**-**	**-**	**-**	**-**	**6.8**	**-**	**-**	**4.5**	**11.3**
1100/1/1	**-**	**1.1**	**-**	**-**	**-**	**3.3**	**-**	**4.4**	**1.8**	**10.6**
1100/2/1	**-**	**1.1**	**-**	**-**	**-**	**3.3**	**-**	**4.4**	**1.8**	**10.6**
1100/3/1	**-**	**1.1**	**-**	**-**	**-**	**3.3**	**-**	**4.4**	**1.8**	**10.6**
1100/4/1	**-**	**1.1**	**-**	**-**	**-**	**3.3**	**-**	**4.4**	**1.8**	**10.6**
1098/1/1	-	-	-	-	-	0.8	-	-	9.0	9.8
1098/2/1	-	-	-	-	-	0.8	-	-	9.0	9.8
1155/1/1	-	0.7	0.4	-	1.1	1.9	0.9	0.8	3.6	9.4
1155/2/1	-	0.7	0.4	-	1.1	1.9	0.9	0.8	3.6	9.4
1159/1/1	-	-	-	-	3.7	5.6	-	-	-	9.3
1159/2/1	-	-	-	-	3.7	5.6	-	-	-	9.3
1102/1/1	-	4.6	-	-	4.5	-	-	-	-	9.1
1102/2/1	-	4.6	-	-	4.5	-	-	-	-	9.1
1102/3/1	-	4.6	-	-	4.5	-	-	-	-	9.1
1010/1/1	-	-	0.2	-	0.04	0.8	2.7	0.3	4.5	8.6

Table 10. Adults' consumption rates of other vegetables from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Aubergine	Broad bean	French bean	Mangetout	Pea	Runner bean	Squash	Sweetcorn	Tomato	Total
1010/2/1	-	-	0.2	-	0.04	0.8	2.7	0.3	4.5	8.6
1157/1/1	-	-	0.6	2.3	-	-	-	0.3	4.5	7.7
1157/2/1	-	-	0.6	2.3	-	-	-	0.3	4.5	7.7
1096/1/1	-	-	-	-	-	5.4	1.0	1.2	-	7.6
1096/2/1	-	-	-	-	-	5.4	1.0	1.2	-	7.6
1150/1/1	-	-	-	-	-	2.7	-	-	4.5	7.3
1162/1/1	-	0.9	-	-	2.5	0.8	3.0	-	-	7.2
1162/2/1	-	0.9	-	-	2.5	0.8	3.0	-	-	7.2
1023/1/1	-	0.7	-	-	0.05	-	4.9	-	-	5.6
1023/2/1	-	0.7	-	-	0.05	-	4.9	-	-	5.6
1162/3/1	-	0.7	-	-	1.8	0.6	2.2	-	-	5.4
1152/1/1	-	-	0.4	0.6	-	0.9	0.9	0.8	1.3	4.8
1152/2/1	-	-	0.4	0.6	-	0.9	0.9	0.8	1.3	4.8
1152/3/1	-	-	0.4	0.6	-	0.9	0.9	0.8	1.3	4.8
1152/4/1	-	-	0.4	0.6	-	0.9	0.9	0.8	1.3	4.8
1143/1/1	-	1.5	-	-	1.3	-	-	-	1.8	4.7
1143/2/1	-	1.5	-	-	1.3	-	-	-	1.8	4.7
1060/1/1	-	1.7	-	-	1.1	1.7	-	-	-	4.5
1060/2/1	-	1.7	-	-	1.1	1.7	-	-	-	4.5
1045/1/1	-	2.6	0.3	-	-	1.1	-	0.5	-	4.5
1045/2/1	-	2.6	0.3	-	-	1.1	-	0.5	-	4.5
1045/3/1	-	2.6	0.3	-	-	1.1	-	0.5	-	4.5
1045/4/1	-	2.6	0.3	-	-	1.1	-	0.5	-	4.5
1151/1/1	-	-	1.9	-	0.5	1.2	-	0.9	-	4.4
1151/2/1	-	-	1.9	-	0.5	1.2	-	0.9	-	4.4
1036/1/1	-	-	1.5	-	2.8	-	-	-	-	4.3
1146/1/1	-	-	-	-	-	2.0	-	-	2.0	4.0
1146/2/1	-	-	-	-	-	2.0	-	-	2.0	4.0
1042/1/1	-	-	-	-	2.0	-	1.8	-	-	3.8
1042/2/1	-	-	-	-	2.0	-	1.8	-	-	3.8

Table 10. Adults' consumption rates of other vegetables from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Aubergine	Broad bean	French bean	Mangetout	Pea	Runner bean	Squash	Sweetcorn	Tomato	Total
1145/1/1	-	-	-	-	-	1.6	-	-	2.0	3.6
1145/2/1	-	-	-	-	-	1.6	-	-	2.0	3.6
1145/3/1	-	-	-	-	-	1.6	-	-	2.0	3.6
1121/1/1	-	-	-	-	-	1.9	-	-	1.3	3.1
1121/2/1	-	-	-	-	-	1.9	-	-	1.3	3.1
1121/3/1	-	-	-	-	-	1.9	-	-	1.3	3.1
1121/4/1	-	-	-	-	-	1.9	-	-	1.3	3.1
1035/1/1	-	1.2	0.07	-	0.2	0.2	1.1	0.3	-	3.0
1035/1/2	-	1.2	0.07	-	0.2	0.2	1.1	0.3	-	3.0
1035/1/3	-	1.2	0.07	-	0.2	0.2	1.1	0.3	-	3.0
1035/1/4	-	1.2	0.07	-	0.2	0.2	1.1	0.3	-	3.0
1035/2/1	-	1.2	0.07	-	0.2	0.2	1.1	0.3	-	3.0
1035/2/2	-	1.2	0.07	-	0.2	0.2	1.1	0.3	-	3.0
1035/2/3	-	1.2	0.07	-	0.2	0.2	1.1	0.3	-	3.0
1035/2/4	-	1.2	0.07	-	0.2	0.2	1.1	0.3	-	3.0
1016/1/1	-	-	-	-	-	2.7	-	-	-	2.7
1016/2/1	-	-	-	-	-	2.7	-	-	-	2.7
1094/1/1	-	-	2.7	-	-	-	-	-	-	2.7
1094/2/1	-	-	2.7	-	-	-	-	-	-	2.7
1095/1/1	-	-	-	-	-	-	-	1.8	-	1.8
1095/2/1	-	-	-	-	-	-	-	1.8	-	1.8
1163/1/1	-	-	-	-	-	-	-	1.8	-	1.8
1163/2/1	-	-	-	-	-	-	-	1.8	-	1.8
1101/1/1	-	-	-	-	-	1.6	-	-	-	1.6
1101/2/1	-	-	-	-	-	1.6	-	-	-	1.6
1101/3/1	-	-	-	-	-	1.6	-	-	-	1.6
1101/4/1	-	-	-	-	-	1.6	-	-	-	1.6
1090/1/1	-	-	-	-	-	-	-	-	1.3	1.3
1090/2/1	-	-	-	-	-	-	-	-	1.3	1.3
1090/3/1	-	-	-	-	-	-	-	-	1.3	1.3

Table 10. Adults' consumption rates of other vegetables from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Aubergine	Broad bean	French bean	Mangetout	Pea	Runner bean	Squash	Sweetcorn	Tomato	Total
1149/1/1	-	-	-	-	-	-	-	-	1.1	1.1
1149/2/1	-	-	-	-	-	-	-	-	1.1	1.1
1036/2/1	-	-	0.2	-	0.4	-	-	-	-	0.6
1036/3/1	-	-	0.2	-	0.4	-	-	-	-	0.6
1036/3/2	-	-	0.2	-	0.4	-	-	-	-	0.6

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of other vegetables for adults based on the 20 high-rate consumers is 14.9 kg y^{-1}

The observed 97.5th percentile rate based on 95 observations is 19.6 kg y^{-1}

Table 11. Adults' consumption rates of root vegetables from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Beetroot	Carrot	Celeriac	Celery	Fennel	Garlic	Leek	Onion	Parsnip	Shallot	Spring onion	Swede	Turnip	Total
1102/1/1	**4.5**	**4.5**	**-**	**-**	**-**	**-**	**9.0**	**14.4**	**4.8**	**6.4**	**2.0**	**6.8**	**5.4**	**57.8**
1102/2/1	**4.5**	**4.5**	**-**	**-**	**-**	**-**	**9.0**	**14.4**	**4.8**	**6.4**	**2.0**	**6.8**	**5.4**	**57.8**
1102/3/1	**4.5**	**4.5**	**-**	**-**	**-**	**-**	**9.0**	**14.4**	**4.8**	**6.4**	**2.0**	**6.8**	**5.4**	**57.8**
1154/1/1	**7.1**	**-**	**-**	**-**	**-**	**-**	**6.8**	**11.3**	**5.4**	**-**	**-**	**-**	**-**	**30.6**
1160/1/1	**1.7**	**2.7**	**-**	**-**	**-**	**-**	**8.4**	**-**	**-**	**-**	**-**	**-**	**10.1**	**23.0**
1160/2/1	**1.7**	**2.7**	**-**	**-**	**-**	**-**	**8.4**	**-**	**-**	**-**	**-**	**-**	**10.1**	**23.0**
1100/1/1	6.5	4.3	-	-	-	-	3.2	5.2	-	-	-	-	-	19.2
1100/2/1	6.5	4.3	-	-	-	-	3.2	5.2	-	-	-	-	-	19.2
1100/3/1	6.5	4.3	-	-	-	-	3.2	5.2	-	-	-	-	-	19.2
1100/4/1	6.5	4.3	-	-	-	-	3.2	5.2	-	-	-	-	-	19.2
1060/1/1	1.1	-	1.1	-	-	-	1.1	11.3	-	-	-	-	-	14.7
1060/2/1	1.1	-	1.1	-	-	-	1.1	11.3	-	-	-	-	-	14.7
1046/1/1	1.1	-	-	-	-	0.9	7.0	-	4.5	-	-	-	-	13.6
1046/2/1	1.1	-	-	-	-	0.9	7.0	-	4.5	-	-	-	-	13.6
1161/1/1	8.1	-	-	-	-	-	-	-	3.2	-	-	-	-	11.3
1161/2/1	8.1	-	-	-	-	-	-	-	3.2	-	-	-	-	11.3
1095/1/1	0.6	5.4	-	-	-	-	2.2	1.7	1.4	-	-	-	-	11.3
1095/2/1	0.6	5.4	-	-	-	-	2.2	1.7	1.4	-	-	-	-	11.3
1159/1/1	3.7	-	-	-	-	-	-	3.0	-	-	-	-	4.5	11.1
1159/2/1	3.7	-	-	-	-	-	-	3.0	-	-	-	-	4.5	11.1
1151/1/1	1.1	-	-	-	0.1	-	2.3	7.2	-	-	-	-	-	10.7
1151/2/1	1.1	-	-	-	0.1	-	2.3	7.2	-	-	-	-	-	10.7
1158/1/1	4.1	-	-	-	-	-	-	3.2	3.2	-	-	-	-	10.5
1158/2/1	4.1	-	-	-	-	-	-	3.2	3.2	-	-	-	-	10.5
1155/3/1	0.9	1.5	-	-	0.1	-	3.3	0.9	-	-	-	1.8	0.7	9.2
1155/4/1	0.9	1.5	-	-	0.1	-	3.3	0.9	-	-	-	1.8	0.7	9.2
1155/5/1	0.9	1.5	-	-	0.1	-	3.3	0.9	-	-	-	1.8	0.7	9.2
1045/1/1	-	-	-	-	-	-	-	4.0	4.0	-	-	-	-	8.1
1045/2/1	-	-	-	-	-	-	-	4.0	4.0	-	-	-	-	8.1
1045/3/1	-	-	-	-	-	-	-	4.0	4.0	-	-	-	-	8.1

Table 11. Adults' consumption rates of root vegetables from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Beetroot	Carrot	Celeriac	Celery	Fennel	Garlic	Leek	Onion	Parsnip	Shallot	Spring onion	Swede	Turnip	Total
1045/4/1	-	-	-	-	-	-	-	4.0	4.0	-	-	-	-	8.1
1036/1/1	1.9	0.5	-	-	-	-	5.0	-	-	-	-	-	-	7.5
1034/1/1	-	1.7	-	-	-	-	-	4.0	1.3	-	-	-	-	7.1
1034/2/1	-	1.7	-	-	-	-	-	4.0	1.3	-	-	-	-	7.1
1034/3/1	-	1.7	-	-	-	-	-	4.0	1.3	-	-	-	-	7.1
1034/4/1	-	1.7	-	-	-	-	-	4.0	1.3	-	-	-	-	7.1
1155/1/1	0.7	1.1	-	-	0.04	-	2.5	0.7	-	-	-	1.4	0.5	6.9
1155/2/1	0.7	1.1	-	-	0.04	-	2.5	0.7	-	-	-	1.4	0.5	6.9
1152/1/1	1.4	-	-	-	0.04	0.3	2.7	1.4	-	-	-	-	-	5.9
1152/2/1	1.4	-	-	-	0.04	0.3	2.7	1.4	-	-	-	-	-	5.9
1152/3/1	1.4	-	-	-	0.04	0.3	2.7	1.4	-	-	-	-	-	5.9
1152/4/1	1.4	-	-	-	0.04	0.3	2.7	1.4	-	-	-	-	-	5.9
1023/1/1	3.5	-	-	1.5	-	-	-	0.8	-	-	-	-	-	5.8
1023/2/1	3.5	-	-	1.5	-	-	-	0.8	-	-	-	-	-	5.8
1035/1/1	1.2	-	-	-	-	-	-	0.7	0.3	-	-	2.5	-	4.7
1035/1/2	1.2	-	-	-	-	-	-	0.7	0.3	-	-	2.5	-	4.7
1035/1/3	1.2	-	-	-	-	-	-	0.7	0.3	-	-	2.5	-	4.7
1035/1/4	1.2	-	-	-	-	-	-	0.7	0.3	-	-	2.5	-	4.7
1035/2/1	1.2	-	-	-	-	-	-	0.7	0.3	-	-	2.5	-	4.7
1035/2/2	1.2	-	-	-	-	-	-	0.7	0.3	-	-	2.5	-	4.7
1035/2/3	1.2	-	-	-	-	-	-	0.7	0.3	-	-	2.5	-	4.7
1035/2/4	1.2	-	-	-	-	-	-	0.7	0.3	-	-	2.5	-	4.7
1094/1/1	-	-	-	-	-	-	-	2.7	-	1.2	-	-	-	3.9
1094/2/1	-	-	-	-	-	-	-	2.7	-	1.2	-	-	-	3.9
1042/1/1	-	-	-	-	-	-	3.6	-	-	-	-	-	-	3.6
1042/2/1	-	-	-	-	-	-	3.6	-	-	-	-	-	-	3.6
1162/1/1	1.2	-	-	-	-	0.4	-	1.8	-	-	-	-	-	3.4
1162/2/1	1.2	-	-	-	-	0.4	-	1.8	-	-	-	-	-	3.4
1101/1/1	-	-	-	-	-	-	-	-	3.0	-	-	-	-	3.0
1101/2/1	-	-	-	-	-	-	-	-	3.0	-	-	-	-	3.0

Table 11. Adults' consumption rates of root vegetables from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Beetroot	Carrot	Celeriac	Celery	Fennel	Garlic	Leek	Onion	Parsnip	Shallot	Spring onion	Swede	Turnip	Total
1101/3/1	-	-	-	-	-	-	-	-	3.0	-	-	-	-	3.0
1101/4/1	-	-	-	-	-	-	-	-	3.0	-	-	-	-	3.0
1096/1/1	1.1	-	-	-	-	-	-	1.9	-	-	-	-	-	3.0
1096/2/1	1.1	-	-	-	-	-	-	1.9	-	-	-	-	-	3.0
1010/1/1	1.1	0.3	-	0.6	-	-	0.6	-	-	-	-	-	-	2.7
1010/2/1	1.1	0.3	-	0.6	-	-	0.6	-	-	-	-	-	-	2.7
1162/3/1	0.9	-	-	-	-	0.3	-	1.3	-	-	-	-	-	2.6
1163/1/1	-	-	-	-	-	-	-	1.7	-	-	-	-	-	1.7
1163/2/1	-	-	-	-	-	-	-	1.7	-	-	-	-	-	1.7
1036/2/1	0.3	0.08	-	-	-	-	0.7	-	-	-	-	-	-	1.1
1036/3/1	0.3	0.08	-	-	-	-	0.7	-	-	-	-	-	-	1.1
1036/3/2	0.3	0.08	-	-	-	-	0.7	-	-	-	-	-	-	1.1
1098/1/1	0.4	-	-	-	-	-	-	-	-	-	-	-	-	0.4
1098/2/1	0.4	-	-	-	-	-	-	-	-	-	-	-	-	0.4

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of root vegetables for adults based on the 6 high-rate consumers is 41.6 kg y^{-1}

The observed 97.5th percentile rate based on 74 observations is 57.8 kg y^{-1}

Table 12. Adults' consumption rates of potato from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Potato
1161/1/1	**124.7**
1161/2/1	**124.7**
1102/1/1	**72.8**
1102/2/1	**72.8**
1102/3/1	**72.8**
1100/1/1	**45.9**
1100/2/1	**45.9**
1100/3/1	**45.9**
1100/4/1	**45.9**
1160/1/1	34.1
1160/2/1	34.1
1154/1/1	32.8
1162/1/1	29.8
1162/2/1	29.8
1045/1/1	28.2
1045/2/1	28.2
1045/3/1	28.2
1045/4/1	28.2
1016/1/1	27.3
1016/2/1	27.3
1060/1/1	22.7
1060/2/1	22.7
1162/3/1	22.3
1034/1/1	20.5
1034/2/1	20.5
1034/3/1	20.5
1034/4/1	20.5
1023/1/1	19.4
1023/2/1	19.4
1150/1/1	18.1
1163/1/1	14.8
1163/2/1	14.8
1094/1/1	13.7
1094/2/1	13.7
1151/1/1	13.7
1151/2/1	13.7
1046/1/1	13.6
1046/2/1	13.6
1095/1/1	13.1
1095/2/1	13.1
1158/1/1	8.2
1158/2/1	8.2
1159/1/1	7.5
1159/2/1	7.5

Table 12. Adults' consumption rates of potato from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Potato
1010/1/1	7.5
1010/2/1	7.5
1157/1/1	6.0
1157/2/1	6.0
1035/1/1	5.8
1035/1/2	5.8
1035/1/3	5.8
1035/1/4	5.8
1035/2/1	5.8
1035/2/2	5.8
1035/2/3	5.8
1035/2/4	5.8
1121/1/1	5.0
1121/2/1	5.0
1121/3/1	5.0
1121/4/1	5.0
1155/3/1	4.6
1155/4/1	4.6
1155/5/1	4.6
1155/1/1	3.4
1155/2/1	3.4

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of potato for adults based on the 9 high-rate consumers is 72.4 kg y^{-1}

The observed 97.5th percentile rate based on 65 observations is 93.6 kg y^{-1}

Table 13. Adults' consumption rates of domestic fruit from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Apple	Blackberry	Blackcurrant	Blueberry	Cherry	Damson	Fig	Gooseberry	Greengage	Loganberry	Pear	Plum	Raspberry	Redcurrant	Rhubarb	Strawberry	White currant	Worcesterberry	Total
1160/1/1	**-**	**-**	**6.4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**9.5**	**5.1**	**0.9**	**12.8**	**-**	**-**	**34.6**
1160/2/1	**-**	**-**	**6.4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**9.5**	**5.1**	**0.9**	**12.8**	**-**	**-**	**34.6**
1154/1/1	**-**	**11.9**	**5.7**	**2.0**	**-**	**-**	**1.7**	**-**	**-**	**-**	**-**	**-**	**2.0**	**-**	**-**	**7.1**	**-**	**-**	**30.5**
1036/1/1	**6.4**	**-**	**3.2**	**3.2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6.4**	**3.8**	**-**	**3.3**	**1.6**	**-**	**27.8**
1102/1/1	**5.7**	**-**	**1.5**	**-**	**-**	**-**	**-**	**3.8**	**-**	**-**	**-**	**3.9**	**2.3**	**0.8**	**-**	**6.0**	**-**	**-**	**24.0**
1102/2/1	**5.7**	**-**	**1.5**	**-**	**-**	**-**	**-**	**3.8**	**-**	**-**	**-**	**3.9**	**2.3**	**0.8**	**-**	**6.0**	**-**	**-**	**24.0**
1102/3/1	**5.7**	**-**	**1.5**	**-**	**-**	**-**	**-**	**3.8**	**-**	**-**	**-**	**3.9**	**2.3**	**0.8**	**-**	**6.0**	**-**	**-**	**24.0**
1155/3/1	**-**	**-**	**3.8**	**-**	**-**	**-**	**-**	**1.4**	**-**	**1.3**	**-**	**5.7**	**3.3**	**0.8**	**2.3**	**4.5**	**-**	**0.7**	**23.8**
1155/4/1	**-**	**-**	**3.8**	**-**	**-**	**-**	**-**	**1.4**	**-**	**1.3**	**-**	**5.7**	**3.3**	**0.8**	**2.3**	**4.5**	**-**	**0.7**	**23.8**
1155/5/1	**-**	**-**	**3.8**	**-**	**-**	**-**	**-**	**1.4**	**-**	**1.3**	**-**	**5.7**	**3.3**	**0.8**	**2.3**	**4.5**	**-**	**0.7**	**23.8**
1150/1/1	**11.3**	**-**	**-**	**-**	**2.7**	**-**	**-**	**-**	**1.4**	**-**	**1.4**	**1.4**	**-**	**-**	**-**	**-**	**-**	**-**	**18.1**
1155/1/1	**-**	**-**	**2.8**	**-**	**-**	**-**	**-**	**1.0**	**-**	**1.0**	**-**	**4.3**	**2.5**	**0.6**	**1.7**	**3.4**	**-**	**0.5**	**17.8**
1155/2/1	**-**	**-**	**2.8**	**-**	**-**	**-**	**-**	**1.0**	**-**	**1.0**	**-**	**4.3**	**2.5**	**0.6**	**1.7**	**3.4**	**-**	**0.5**	**17.8**
1151/1/1	**-**	**-**	**2.8**	**-**	**-**	**-**	**-**	**2.0**	**-**	**-**	**2.5**	**-**	**2.0**	**2.3**	**1.1**	**2.7**	**-**	**-**	**15.6**
1151/2/1	**-**	**-**	**2.8**	**-**	**-**	**-**	**-**	**2.0**	**-**	**-**	**2.5**	**-**	**2.0**	**2.3**	**1.1**	**2.7**	**-**	**-**	**15.6**
1034/1/1	**5.6**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.7**	**6.4**	**-**	**-**	**-**	**-**	**-**	**-**	**13.7**
1034/2/1	**5.6**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.7**	**6.4**	**-**	**-**	**-**	**-**	**-**	**-**	**13.7**
1034/3/1	**5.6**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.7**	**6.4**	**-**	**-**	**-**	**-**	**-**	**-**	**13.7**
1034/4/1	**5.6**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.7**	**6.4**	**-**	**-**	**-**	**-**	**-**	**-**	**13.7**
1045/1/1	**4.3**	**-**	**2.1**	**-**	**-**	**-**	**-**	**0.8**	**-**	**-**	**-**	**-**	**0.5**	**3.4**	**2.6**	**-**	**-**	**-**	**13.6**
1045/2/1	**4.3**	**-**	**2.1**	**-**	**-**	**-**	**-**	**0.8**	**-**	**-**	**-**	**-**	**0.5**	**3.4**	**2.6**	**-**	**-**	**-**	**13.6**
1045/3/1	**4.3**	**-**	**2.1**	**-**	**-**	**-**	**-**	**0.8**	**-**	**-**	**-**	**-**	**0.5**	**3.4**	**2.6**	**-**	**-**	**-**	**13.6**
1045/4/1	**4.3**	**-**	**2.1**	**-**	**-**	**-**	**-**	**0.8**	**-**	**-**	**-**	**-**	**0.5**	**3.4**	**2.6**	**-**	**-**	**-**	**13.6**
1042/1/1	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.5**	**-**	**-**	**-**	**2.0**	**1.5**	**-**	**-**	**8.2**	**-**	**-**	**12.2**
1042/2/1	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.5**	**-**	**-**	**-**	**2.0**	**1.5**	**-**	**-**	**8.2**	**-**	**-**	**12.2**
1162/1/1	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.1**	**-**	**1.3**	**9.3**	**-**	**-**	**11.6**
1162/2/1	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.1**	**-**	**1.3**	**9.3**	**-**	**-**	**11.6**
1101/1/1	2.0	-	-	-	-	-	-	-	-	-	-	0.9	4.0	-	3.0	0.4	-	-	10.3

Table 13. Adults' consumption rates of domestic fruit from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Apple	Blackberry	Blackcurrant	Blueberry	Cherry	Damson	Fig	Gooseberry	Greengage	Loganberry	Pear	Plum	Raspberry	Redcurrant	Rhubarb	Strawberry	White currant	Worcesterberry	Total
1101/2/1	2.0	-	-	-	-	-	-	-	-	-	-	0.9	4.0	-	3.0	0.4	-	-	10.3
1101/3/1	2.0	-	-	-	-	-	-	-	-	-	-	0.9	4.0	-	3.0	0.4	-	-	10.3
1101/4/1	2.0	-	-	-	-	-	-	-	-	-	-	0.9	4.0	-	3.0	0.4	-	-	10.3
1095/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.8	6.9	-	-	9.6
1095/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.8	6.9	-	-	9.6
1060/1/1	-	-	5.7	-	-	-	-	-	-	-	-	-	1.1	-	1.1	1.1	-	-	9.1
1060/2/1	-	-	5.7	-	-	-	-	-	-	-	-	-	1.1	-	1.1	1.1	-	-	9.1
1159/1/1	3.4	-	-	-	-	-	-	-	-	-	-	-	5.6	-	-	-	-	-	9.0
1159/2/1	3.4	-	-	-	-	-	-	-	-	-	-	-	5.6	-	-	-	-	-	9.0
1100/1/1	4.0	-	1.1	-	-	-	-	0.8	-	-	-	-	0.8	0.9	-	1.1	-	-	8.8
1100/2/1	4.0	-	1.1	-	-	-	-	0.8	-	-	-	-	0.8	0.9	-	1.1	-	-	8.8
1100/3/1	4.0	-	1.1	-	-	-	-	0.8	-	-	-	-	0.8	0.9	-	1.1	-	-	8.8
1100/4/1	4.0	-	1.1	-	-	-	-	0.8	-	-	-	-	0.8	0.9	-	1.1	-	-	8.8
1162/3/1	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-	0.9	7.0	-	-	8.7
1010/1/1	3.8	-	-	-	-	-	-	-	-	-	-	-	1.3	-	0.9	2.6	-	-	8.4
1010/2/1	3.8	-	-	-	-	-	-	-	-	-	-	-	1.3	-	0.9	2.6	-	-	8.4
1157/1/1	1.1	-	-	-	-	0.9	-	-	-	1.5	-	0.5	1.0	-	1.1	1.5	-	-	7.6
1157/2/1	1.1	-	-	-	-	0.9	-	-	-	1.5	-	0.5	1.0	-	1.1	1.5	-	-	7.6
1161/1/1	-	-	-	-	-	-	-	-	-	-	-	-	7.6	-	-	-	-	-	7.6
1161/2/1	-	-	-	-	-	-	-	-	-	-	-	-	7.6	-	-	-	-	-	7.6
1121/1/1	3.8	-	0.6	-	-	-	-	-	-	-	1.3	0.6	0.6	0.6	-	-	-	-	7.5
1121/2/1	3.8	-	0.6	-	-	-	-	-	-	-	1.3	0.6	0.6	0.6	-	-	-	-	7.5
1121/3/1	3.8	-	0.6	-	-	-	-	-	-	-	1.3	0.6	0.6	0.6	-	-	-	-	7.5
1121/4/1	3.8	-	0.6	-	-	-	-	-	-	-	1.3	0.6	0.6	0.6	-	-	-	-	7.5
1094/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.1	-	-	7.1
1094/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.1	-	-	7.1
1046/1/1	-	-	-	0.5	-	-	-	-	-	-	-	-	6.6	-	-	-	-	-	7.0
1046/2/1	-	-	-	0.5	-	-	-	-	-	-	-	-	6.6	-	-	-	-	-	7.0

Table 13. Adults' consumption rates of domestic fruit from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Apple	Blackberry	Blackcurrant	Blueberry	Cherry	Damson	Fig	Gooseberry	Greengage	Loganberry	Pear	Plum	Raspberry	Redcurrant	Rhubarb	Strawberry	White currant	Worcesterberry	Total
1023/1/1	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-	1.4	3.3	-	-	5.2
1023/2/1	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-	1.4	3.3	-	-	5.2
1035/1/1	-	-	0.8	0.2	-	-	-	0.2	-	-	-	-	1.9	0.6	0.5	0.4	0.4	-	5.0
1035/1/2	-	-	0.8	0.2	-	-	-	0.2	-	-	-	-	1.9	0.6	0.5	0.4	0.4	-	5.0
1035/1/3	-	-	0.8	0.2	-	-	-	0.2	-	-	-	-	1.9	0.6	0.5	0.4	0.4	-	5.0
1035/1/4	-	-	0.8	0.2	-	-	-	0.2	-	-	-	-	1.9	0.6	0.5	0.4	0.4	-	5.0
1035/2/1	-	-	0.8	0.2	-	-	-	0.2	-	-	-	-	1.9	0.6	0.5	0.4	0.4	-	5.0
1035/2/2	-	-	0.8	0.2	-	-	-	0.2	-	-	-	-	1.9	0.6	0.5	0.4	0.4	-	5.0
1035/2/3	-	-	0.8	0.2	-	-	-	0.2	-	-	-	-	1.9	0.6	0.5	0.4	0.4	-	5.0
1035/2/4	-	-	0.8	0.2	-	-	-	0.2	-	-	-	-	1.9	0.6	0.5	0.4	0.4	-	5.0
1036/2/1	0.9	-	0.5	0.5	-	-	-	-	-	-	-	-	0.9	0.5	-	0.5	0.2	-	4.0
1036/3/1	0.9	-	0.5	0.5	-	-	-	-	-	-	-	-	0.9	0.5	-	0.5	0.2	-	4.0
1036/3/2	0.9	-	0.5	0.5	-	-	-	-	-	-	-	-	0.9	0.5	-	0.5	0.2	-	4.0
1096/1/1	-	-	1.0	-	-	-	-	-	-	-	-	-	0.4	-	-	2.4	-	-	3.8
1096/2/1	-	-	1.0	-	-	-	-	-	-	-	-	-	0.4	-	-	2.4	-	-	3.8
1145/1/1	2.0	-	-	-	-	-	-	-	-	-	-	-	0.6	-	-	1.0	-	-	3.6
1145/2/1	2.0	-	-	-	-	-	-	-	-	-	-	-	0.6	-	-	1.0	-	-	3.6
1145/3/1	2.0	-	-	-	-	-	-	-	-	-	-	-	0.6	-	-	1.0	-	-	3.6
1163/1/1	-	-	0.3	-	-	-	-	0.3	-	-	-	-	1.3	-	1.5	-	-	-	3.4
1163/2/1	-	-	0.3	-	-	-	-	0.3	-	-	-	-	1.3	-	1.5	-	-	-	3.4
1143/1/1	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	0.3	2.7	-	-	3.4
1143/2/1	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	0.3	2.7	-	-	3.4
1158/1/1	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-	2.3	-	-	-	3.0
1158/2/1	-	-	-	-	-	-	-	-	-	-	-	-	0.7	-	2.3	-	-	-	3.0
1138/1/1	2.3	-	0.2	-	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	2.9
1085/1/1	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5
1085/2/1	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5
1039/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.1	-	-	2.3

Table 13. Adults' consumption rates of domestic fruit from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Apple	Blackberry	Blackcurrant	Blueberry	Cherry	Damson	Fig	Gooseberry	Greengage	Loganberry	Pear	Plum	Raspberry	Redcurrant	Rhubarb	Strawberry	White currant	Worcesterberry	Total
1039/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.1	-	-	2.3
1067/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-	-	-	1.1
1067/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-	-	-	1.1
1067/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-	-	-	1.1
1067/4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	-	-	-	1.1
1152/1/1	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	-	0.4
1152/2/1	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	-	0.4
1152/3/1	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	-	0.4
1152/4/1	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	-	0.4

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of domestic fruit for adults based on the 27 high-rate consumers is 19.0 kg y^{-1}

The observed 97.5th percentile rate based on 93 observations is 29.7 kg y^{-1}

Table 14. Adults' consumption rates of milk from the Amersham terrestrial survey area (l y^{-1})

Person ID number	Cows' milk	Goats' milk	Total
1120/1/1	**177.7**	**-**	**177.7**
1158/1/1	**-**	**138.8**	**138.8**
1158/2/1	**-**	**79.5**	**79.5**

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of milk for adults based on the 3 high-rate consumers is 132.0 l y^{-1}

The observed 97.5th percentile rate based on 3 observations is 175.7 l y^{-1}

Table 15. Adults' consumption rates of cattle meat from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Beef
1121/1/1	**12.5**
1121/2/1	**12.5**
1121/3/1	**12.5**
1121/4/1	**12.5**

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of cattle meat for adults based on the 4 high-rate consumers is 12.5 kg y^{-1}

The observed 97.5th percentile rate based on 4 observations is 12.5 kg y^{-1}

Table 16. Adults' consumption rates of pig meat from the Amersham terrestrial survey area (kg y $^{-1}$)

Person ID number	Pork
1007/1/1	**25.3**
1007/2/1	**25.3**
1100/1/1	**25.3**
1100/2/1	**25.3**
1100/3/1	**25.3**
1100/4/1	**25.3**
1064/1/1	**9.5**
1064/2/1	**9.5**
1064/3/1	**9.5**
1064/4/1	**9.5**
1064/5/1	**9.5**
1064/6/1	**9.5**
1064/7/1	**9.5**
1064/8/1	**9.5**

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of pig meat for adults based on the 14 high-rate consumers is 16.3 kg y $^{-1}$

The observed 97.5th percentile rate based on 14 observations is 25.3 kg y $^{-1}$

Table 17. Adults' consumption rates of sheep meat from the Amersham terrestrial survey area (kg y $^{-1}$)

Person ID number	Lamb
1016/1/1	**17.0**
1016/2/1	**17.0**
1016/3/1	**17.0**
1016/3/2	**17.0**
1016/4/1	**17.0**
1016/4/2	**17.0**
1156/1/1	**10.5**
1156/2/1	**10.5**
1156/4/1	**10.5**
1102/1/1	**7.5**
1102/2/1	**7.5**
1102/3/1	**7.5**
1007/1/1	5.7
1007/2/1	5.7

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of sheep meat for adults based on the 12 high-rate consumers is 13.0 kg y $^{-1}$

The observed 97.5th percentile rate based on 14 observations is 17.0 kg y $^{-1}$

Table 18. Adults' consumption rates of poultry from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Chicken	Partridge	Pheasant	Total
1138/1/1	**6.8**	**-**	**-**	**6.8**
1121/1/1	**-**	**0.9**	**2.7**	**3.6**
1121/2/1	**-**	**0.9**	**2.7**	**3.6**
1120/2/1	**-**	**-**	**2.7**	**2.7**
1007/1/1	-	-	1.6	1.6
1016/1/1	-	-	1.3	1.3
1016/2/1	-	-	1.3	1.3
1120/3/1	-	-	1.3	1.3
1120/4/1	-	-	1.3	1.3
1064/1/1	1.1	-	-	1.1
1064/2/1	1.1	-	-	1.1
1064/3/1	1.1	-	-	1.1
1064/4/1	1.1	-	-	1.1
1064/5/1	1.1	-	-	1.1
1064/6/1	1.1	-	-	1.1
1064/7/1	1.1	-	-	1.1
1064/8/1	1.1	-	-	1.1
1102/1/1	-	-	0.8	0.8
1102/2/1	-	-	0.8	0.8
1102/3/1	-	-	0.8	0.8

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of poultry for adults based on the 4 high-rate consumers is 4.2 kg y^{-1}

The observed 97.5th percentile rate based on 20 observations is 5.3 kg y^{-1}

Table 19. Adults' consumption rates of eggs from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Chicken egg	Duck egg	Total
1065/1/1	**41.6**	**-**	**41.6**
1045/1/1	**30.8**	**-**	**30.8**
1045/2/1	**30.8**	**-**	**30.8**
1045/3/1	**30.8**	**-**	**30.8**
1045/4/1	**30.8**	**-**	**30.8**
1138/1/1	**26.7**	**-**	**26.7**
1143/1/1	**23.8**	**-**	**23.8**
1143/2/1	**23.8**	**-**	**23.8**
1102/1/1	**11.9**	**11.8**	**23.7**
1102/2/1	**11.9**	**11.8**	**23.7**
1102/3/1	**11.9**	**11.8**	**23.7**
1016/1/1	**17.8**	**-**	**17.8**
1016/2/1	**17.8**	**-**	**17.8**
1100/1/1	**17.8**	**-**	**17.8**
1100/2/1	**17.8**	**-**	**17.8**
1100/3/1	**17.8**	**-**	**17.8**
1100/4/1	**17.8**	**-**	**17.8**
1121/1/1	**17.8**	**-**	**17.8**
1121/2/1	**17.8**	**-**	**17.8**
1139/1/1	**17.8**	**-**	**17.8**
1139/2/1	**17.8**	**-**	**17.8**
1150/1/1	**17.8**	**-**	**17.8**
1151/1/1	**17.8**	**-**	**17.8**
1151/2/1	**17.8**	**-**	**17.8**
1101/1/1	**16.8**	**-**	**16.8**
1101/2/1	**16.8**	**-**	**16.8**
1101/3/1	**16.8**	**-**	**16.8**
1101/4/1	**16.8**	**-**	**16.8**
1162/1/1	13.0	-	13.0
1162/2/1	13.0	-	13.0
1145/1/1	10.7	-	10.7
1145/2/1	10.7	-	10.7
1145/3/1	10.7	-	10.7
1158/1/1	8.9	1.4	10.3
1158/2/1	8.9	1.4	10.3
1162/3/1	9.7	-	9.7
1155/1/1	9.6	-	9.6
1155/2/1	9.6	-	9.6
1156/1/1	9.5	-	9.5
1156/2/1	9.5	-	9.5
1156/4/1	9.5	-	9.5
1144/1/1	8.9	-	8.9
1144/2/1	8.9	-	8.9
1067/1/1	6.7	-	6.7

Table 19. Adults' consumption rates of eggs from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Chicken egg	Duck egg	Total
1067/2/1	6.7	-	6.7
1067/3/1	6.7	-	6.7
1067/4/1	6.7	-	6.7
1038/1/1	5.9	-	5.9
1038/2/1	5.9	-	5.9
1121/3/1	5.9	-	5.9
1121/4/1	5.9	-	5.9
1157/1/1	1.7	-	1.7
1157/2/1	1.7	-	1.7
1142/1/1	1.4	-	1.4
1132/1/1	0.7	-	0.7
1132/2/1	0.7	-	0.7
1064/1/1	0.2	-	0.2
1064/2/1	0.2	-	0.2
1064/3/1	0.2	-	0.2
1064/4/1	0.2	-	0.2
1064/5/1	0.2	-	0.2
1064/6/1	0.2	-	0.2
1064/7/1	0.2	-	0.2
1064/8/1	0.2	-	0.2

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of eggs for adults based on the 28 high-rate consumers is 21.7 kg y^{-1}

The observed 97.5th percentile rate based on 64 observations is 30.8 kg y^{-1}

Table 20. Adults' consumption rates of wild/free foods from the Amersham terrestrial survey area (kg y $^{-1}$)

Person ID number	Blackberry	Dandelion leaves	Elderberry	Elderflower	Hazel nut	Nettle	Sloe	Total
1150/1/1	**2.7**	**-**	**0.9**	**-**	**0.5**	**-**	**0.9**	**5.0**
1138/1/1	**3.6**	**-**	**0.9**	**-**	**-**	**-**	**-**	**4.5**
1042/1/1	**4.0**	**-**	**-**	**-**	**-**	**-**	**-**	**4.0**
1042/2/1	**4.0**	**-**	**-**	**-**	**-**	**-**	**-**	**4.0**
1101/1/1	**-**	**-**	**-**	**0.4**	**-**	**-**	**2.5**	**2.9**
1101/2/1	**-**	**-**	**-**	**0.4**	**-**	**-**	**2.5**	**2.9**
1091/1/1	**1.4**	**-**	**-**	**-**	**-**	**-**	**0.5**	**1.8**
1091/2/1	**1.4**	**-**	**-**	**-**	**-**	**-**	**0.5**	**1.8**
1157/1/1	**1.8**	**-**	**-**	**-**	**-**	**-**	**-**	**1.8**
1157/2/1	**1.8**	**-**	**-**	**-**	**-**	**-**	**-**	**1.8**
1104/1/1	1.5	-	-	-	-	-	-	1.5
1104/2/1	1.5	-	-	-	-	-	-	1.5
1158/1/1	1.4	-	-	-	-	-	-	1.4
1158/2/1	1.4	-	-	-	-	-	-	1.4
1102/1/1	1.3	-	-	-	-	-	-	1.3
1102/2/1	1.3	-	-	-	-	-	-	1.3
1102/3/1	1.3	-	-	-	-	-	-	1.3
1097/1/1	1.3	-	-	-	-	-	-	1.3
1097/2/1	1.3	-	-	-	-	-	-	1.3
1145/1/1	1.0	-	-	-	-	-	-	1.0
1145/2/1	1.0	-	-	-	-	-	-	1.0
1145/3/1	1.0	-	-	-	-	-	-	1.0
1098/1/1	0.8	-	-	-	-	-	-	0.8
1098/2/1	0.8	-	-	-	-	-	-	0.8
1134/1/1	0.7	-	-	-	-	-	-	0.7
1134/2/1	0.7	-	-	-	-	-	-	0.7
1149/1/1	0.6	-	-	-	-	-	-	0.6
1149/2/1	0.6	-	-	-	-	-	-	0.6
1090/1/1	0.6	-	-	-	-	-	-	0.6
1090/2/1	0.6	-	-	-	-	-	-	0.6
1090/3/1	0.6	-	-	-	-	-	-	0.6
1010/1/1	0.6	-	-	-	-	-	-	0.6
1010/2/1	0.6	-	-	-	-	-	-	0.6
1101/3/1	-	-	-	0.4	-	-	-	0.4
1101/4/1	-	-	-	0.4	-	-	-	0.4
1163/1/1	0.3	-	-	-	-	-	-	0.3
1163/2/1	0.3	-	-	-	-	-	-	0.3
1034/1/1	0.2	-	-	-	-	-	-	0.2
1034/2/1	0.2	-	-	-	-	-	-	0.2
1034/3/1	0.2	-	-	-	-	-	-	0.2
1034/4/1	0.2	-	-	-	-	-	-	0.2
1156/1/1	-	-	-	-	-	-	0.2	0.2
1156/2/1	-	-	-	-	-	-	0.2	0.2
1160/1/1	-	0.1	-	-	-	0.1	-	0.2
1160/2/1	-	0.1	-	-	-	0.1	-	0.2
1045/1/1	0.1	-	-	-	-	-	-	0.1
1045/2/1	0.1	-	-	-	-	-	-	0.1
1045/3/1	0.1	-	-	-	-	-	-	0.1
1045/4/1	0.1	-	-	-	-	-	-	0.1

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of wild/free foods for adults based on the 10 high-rate consumers is 3.0 kg y^{-1}

The observed 97.5th percentile rate based on 49 observations is 4.4 kg y^{-1}

Table 21. Adults' consumption rates of rabbits/hares from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Rabbit
1121/1/1	**0.9**
1121/2/1	**0.9**
1102/1/1	**0.8**
1102/2/1	**0.8**
1102/3/1	**0.8**

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of rabbits/hares for adults based on the 5 high-rate consumers is 0.9 kg y^{-1}

The observed 97.5th percentile rate based on 5 observations is 0.9 kg y^{-1}

Table 22. Adults' consumption rates of honey from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Honey
1104/1/1	**5.4**
1101/1/1	**4.1**
1101/2/1	**4.1**
1101/3/1	**4.1**
1101/4/1	**4.1**
1121/3/1	**3.9**
1121/4/1	**3.9**
1007/2/1	**3.6**
1158/1/1	1.5
1158/2/1	1.5
1156/1/1	0.5
1156/2/1	0.5
1156/4/1	0.5
1121/1/1	0.5
1121/2/1	0.5

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of honey for adults based on the 8 high-rate consumers is 4.2 kg y^{-1}

The observed 97.5th percentile rate based on 15 observations is 5.0 kg y^{-1}

Table 23. Adults' consumption rates of wild fungi from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Mushrooms
1150/1/1	**2.7**
1138/1/1	**1.4**
1120/2/1	**1.0**
1102/1/1	0.8
1102/2/1	0.8
1102/3/1	0.8
1120/3/1	0.5
1120/4/1	0.5

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of wild fungi for adults based on the 3 high-rate consumers is 1.7 kg y^{-1}

The observed 97.5th percentile rate based on 8 observations is 2.5 kg y^{-1}

Table 24. Adults' consumption rates of freshwater fish from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Rainbow trout
1137/1/1	**8.8**
1137/2/1	**8.8**
1150/1/1	2.8
1121/1/1	0.7
1121/2/1	0.7
1121/3/1	0.4
1121/4/1	0.4

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of freshwater fish for adults based on the 2 high-rate consumers is 8.8 kg y^{-1}

The observed 97.5th percentile rate based on 7 observations is 8.8 kg y^{-1}

Table 25. Adults' consumption rates of freshwater crustaceans from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Crayfish
1150/1/1	**0.5**
1137/1/1	**0.3**
1137/2/1	**0.3**

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of freshwater crustaceans for adults based on the 3 high-rate consumers is 0.4 kg y^{-1}

The observed 97.5th percentile rate based on 3 observations is 0.4 kg y^{-1}

Table 26. Adults' consumption rates of freshwater plants from the Amersham terrestrial survey area (kg y^{-1})

Person ID number	Watercress
1103/1/1	**17.8**
1091/1/1	0.5
1091/2/1	0.5

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of freshwater plants for adults based on the 1 high-rate consumers is 17.8 kg y^{-1}

The observed 97.5th percentile rate based on 3 observations is 17.0 kg y^{-1}

Table 27. Children's and infants' consumption rates of green vegetables from the Amersham terrestrial survey area (kg y $^{-1}$)

Child age group (6 - 15 years old)

Person ID number	Age	Asparagus	Broccoli	Brussel sprout	Cabbage	Courgette	Cucumber	Kale	Lettuce	Rocket	Spinach	Total
1101/5/1	**6**	**-**	**0.6**	**0.6**	**6.0**	**4.0**	**-**	**0.8**	**-**	**-**	**-**	**12.0**
1152/5/1	**13**	**-**	**0.6**	**-**	**-**	**6.1**	**-**	**-**	**0.9**	**-**	**-**	**7.6**
1152/6/1	**15**	**-**	**0.6**	**-**	**-**	**6.1**	**-**	**-**	**0.9**	**-**	**-**	**7.6**
1163/3/1	12	-	-	-	-	-	-	-	1.2	-	0.5	1.7
1145/4/1	11	-	-	-	-	0.8	-	-	-	-	-	0.8
1145/5/1	10	-	-	-	-	0.8	-	-	-	-	-	0.8
1121/5/1	12	-	-	-	-	-	0.6	-	-	-	-	0.6
1121/6/1	10	-	-	-	-	-	0.6	-	-	-	-	0.6
1121/7/1	9	-	-	-	-	-	0.5	-	-	-	-	0.5
1121/8/1	8	-	-	-	-	-	0.5	-	-	-	-	0.5

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of green vegetables for the child age group based on the 3 high-rate consumers is 9.1 kg y $^{-1}$

The observed 97.5th percentile rate based on 10 observations is 11.0 kg y $^{-1}$

Infant age group (0 - 5 years old)

Person ID number	Age	Asparagus	Broccoli	Brussel sprout	Cabbage	Courgette	Cucumber	Kale	Lettuce	Rocket	Spinach	Total
1096/3/1	**5**	**-**	**-**	**-**	**-**	**1.0**	**-**	**0.8**	**0.4**	**0.4**	**0.3**	**2.8**
1096/4/1	**2**	**-**	**-**	**-**	**-**	**0.6**	**-**	**0.5**	**0.2**	**0.3**	**0.2**	**1.9**
1035/4/1	**4**	**0.2**	**0.09**	**0.1**	**0.5**	**0.3**	**0.1**	**-**	**0.3**	**-**	**0.2**	**1.7**
1143/3/1	**5**	**0.3**	**0.7**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.0**
1143/4/1	**3**	**0.3**	**0.7**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.0**
1035/3/1	1	0.1	0.05	0.1	0.2	0.1	0.04	-	0.2	-	0.1	0.9
1163/4/1	2	-	-	-	-	-	-	-	0.5	-	0.2	0.7
1121/9/1	3	-	-	-	-	-	0.3	-	-	-	-	0.3

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of green vegetables for the infant age group based on the 5 high-rate consumers is 1.7 kg y $^{-1}$

The observed 97.5th percentile rate based on 8 observations is 2.7 kg y $^{-1}$

Table 28. Children's and infants' consumption rates of other vegetables from the Amersham terrestrial survey area (kg y^{-1})

Child age group (6 - 15 years old)

Person ID number	Age	Broad bean	French bean	Mangetout	Pea	Runner bean	Squash	Sweetcorn	Tomato	Total
1152/5/1	**13**	**-**	**0.4**	**0.6**	**-**	**0.9**	**0.9**	**0.8**	**1.3**	**4.8**
1152/6/1	**15**	**-**	**0.4**	**0.6**	**-**	**0.9**	**0.9**	**0.8**	**1.3**	**4.8**
1145/4/1	**11**	**-**	**-**	**-**	**-**	**1.6**	**-**	**-**	**2.0**	**3.6**
1145/5/1	**10**	**-**	**-**	**-**	**-**	**1.6**	**-**	**-**	**2.0**	**3.6**
1121/5/1	**12**	**-**	**-**	**-**	**-**	**1.9**	**-**	**-**	**1.3**	**3.1**
1121/6/1	**10**	**-**	**-**	**-**	**-**	**1.9**	**-**	**-**	**1.3**	**3.1**
1121/7/1	**9**	**-**	**-**	**-**	**-**	**1.4**	**-**	**-**	**0.9**	**2.3**
1121/8/1	**8**	**-**	**-**	**-**	**-**	**1.4**	**-**	**-**	**0.9**	**2.3**
1101/5/1	6	-	-	-	-	1.6	-	-	-	1.6
1163/3/1	12	-	-	-	-	-	-	1.3	-	1.3
1149/3/1	9	-	-	-	-	-	-	-	0.9	0.9
1149/4/1	7	-	-	-	-	-	-	-	0.9	0.9

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of other vegetables for the child age group based on the 8 high-rate consumers is 3.5 kg y^{-1}

The observed 97.5th percentile rate based on 12 observations is 4.8 kg y^{-1}

Infant age group (0 - 5 years old)

Person ID number	Age	Broad bean	French bean	Mangetout	Pea	Runner bean	Squash	Sweetcorn	Tomato	Total
1096/3/1	**5**	**-**	**-**	**-**	**-**	**2.7**	**0.5**	**0.6**	**-**	**3.8**
1096/4/1	**2**	**-**	**-**	**-**	**-**	**1.8**	**0.3**	**0.4**	**-**	**2.5**
1143/3/1	**5**	**0.8**	**-**	**-**	**0.7**	**-**	**-**	**-**	**0.9**	**2.3**
1143/4/1	**3**	**0.8**	**-**	**-**	**0.7**	**-**	**-**	**-**	**0.9**	**2.3**
1121/9/1	**3**	**-**	**-**	**-**	**-**	**0.9**	**-**	**-**	**0.6**	**1.6**
1035/4/1	**4**	**0.6**	**0.03**	**-**	**0.1**	**0.1**	**0.5**	**0.1**	**-**	**1.5**
1035/3/1	1	0.3	0.02	-	0.1	0.0	0.3	0.1	-	0.8
1090/4/1	5	-	-	-	-	-	-	-	0.7	0.7
1090/5/1	3	-	-	-	-	-	-	-	0.7	0.7
1163/4/1	2	-	-	-	-	-	-	0.6	-	0.6

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of other vegetables for the infant age group based on the 6 high-rate consumers is 2.3 kg y^{-1}

The observed 97.5th percentile rate based on 10 observations is 3.5 kg y^{-1}

Table 29. Children's and infants' consumption rates of root vegetables from the Amersham terrestrial survey area (kg y^{-1})

Child age group (6 - 15 years old)

Person ID number	Age	Beetroot	Fennel	Garlic	Leek	Onion	Parsnip	Swede	Total
1152/5/1	**13**	**1.4**	**0.04**	**0.3**	**2.7**	**1.4**	**-**	**-**	**5.9**
1152/6/1	**15**	**1.4**	**0.04**	**0.3**	**2.7**	**1.4**	**-**	**-**	**5.9**
1101/5/1	**6**	**-**	**-**	**-**	**-**	**-**	**3.0**	**-**	**3.0**
1163/3/1	12	-	-	-	-	1.3	-	-	1.3

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of root vegetables for the child age group based on the 3 high-rate consumers is 4.9 kg y^{-1}

The observed 97.5th percentile rate based on 4 observations is 5.9 kg y^{-1}

Infant age group (0 - 5 years old)

Person ID number	Age	Beetroot	Fennel	Garlic	Leek	Onion	Parsnip	Swede	Total
1035/4/1	**4**	**0.6**	**-**	**-**	**-**	**0.3**	**0.2**	**1.2**	**2.4**
1096/3/1	**5**	**0.5**	**-**	**-**	**-**	**1.0**	**-**	**-**	**1.5**
1035/3/1	**1**	**0.3**	**-**	**-**	**-**	**0.2**	**0.1**	**0.6**	**1.2**
1096/4/1	**2**	**0.3**	**-**	**-**	**-**	**0.6**	**-**	**-**	**1.0**
1163/4/1	2	-	-	-	-	0.6	-	-	0.6

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of root vegetables for the infant age group based on the 4 high-rate consumers is 1.5 kg y^{-1}

The observed 97.5th percentile rate based on 5 observations is 2.3 kg y^{-1}

Table 30. Children's and infants' consumption rates of potato from the Amersham terrestrial survey area (kg y^{-1})

Child age group (6 - 15 years old)

Person ID number	Age	Potato
1163/3/1	**12**	**11.1**
1121/5/1	**12**	**5.0**
1121/6/1	**10**	**5.0**
1121/7/1	**9**	**3.8**
1121/8/1	**8**	**3.8**

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of potato for the child age group based on the 5 high-rate consumers is 5.7 kg y^{-1}

The observed 97.5th percentile rate based on 5 observations is 10.5 kg y^{-1}

Infant age group (0 - 5 years old)

Person ID number	Age	Potato
1163/4/1	**2**	**4.9**
1035/4/1	**4**	**2.9**
1121/9/1	**3**	**2.5**
1035/3/1	1	1.5

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of potato for the infant age group based on the 3 high-rate consumers is 3.4 kg y^{-1}

The observed 97.5th percentile rate based on 4 observations is 4.7 kg y^{-1}

Table 31. Children's and infants' consumption rates of domestic fruit from the Amersham terrestrial survey area (kg y^{-1})

Child age group (6 - 15 years old)

Person ID number	Age	Apple	Blackcurrant	Blueberry	Gooseberry	Pear	Plum	Raspberry	Redcurrant	Rhubarb	Strawberry	White currant	Total
1101/5/1	**6**	**2.0**	**-**	**-**	**-**	**-**	**0.9**	**4.0**	**-**	**3.0**	**0.4**	**-**	**10.3**
1121/5/1	**12**	**3.8**	**0.6**	**-**	**-**	**1.3**	**0.6**	**0.6**	**0.6**	**-**	**-**	**-**	**7.5**
1121/6/1	**10**	**3.8**	**0.6**	**-**	**-**	**1.3**	**0.6**	**0.6**	**0.6**	**-**	**-**	**-**	**7.5**
1121/7/1	**9**	**2.8**	**0.5**	**-**	**-**	**0.9**	**0.5**	**0.5**	**0.5**	**-**	**-**	**-**	**5.6**
1121/8/1	**8**	**2.8**	**0.5**	**-**	**-**	**0.9**	**0.5**	**0.5**	**0.5**	**-**	**-**	**-**	**5.6**
1145/4/1	**11**	**2.0**	**-**	**-**	**-**	**-**	**-**	**0.6**	**-**	**-**	**1.0**	**-**	**3.6**
1145/5/1	**10**	**2.0**	**-**	**-**	**-**	**-**	**-**	**0.6**	**-**	**-**	**1.0**	**-**	**3.6**
1163/3/1	12	-	0.2	-	0.2	-	-	1.0	-	1.1	-	-	2.6
1152/5/1	13	-	-	-	-	-	-	0.4	-	-	-	-	0.4
1152/6/1	15	-	-	-	-	-	-	0.4	-	-	-	-	0.4

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of domestic fruit for the child age group based on the 7 high-rate consumers is 6.2 kg y^{-1}

The observed 97.5th percentile rate based on 10 observations is 9.7 kg y^{-1}

Infant age group (0 - 5 years old)

Person ID number	Age	Apple	Blackcurrant	Blueberry	Gooseberry	Pear	Plum	Raspberry	Redcurrant	Rhubarb	Strawberry	White currant	Total
1121/9/1	**3**	**1.9**	**0.3**	**-**	**-**	**0.6**	**0.3**	**0.3**	**0.3**	**-**	**-**	**-**	**3.8**
1035/4/1	**4**	**-**	**0.4**	**0.1**	**0.1**	**-**	**-**	**0.9**	**0.3**	**0.3**	**0.2**	**0.2**	**2.5**
1096/3/1	**5**	**-**	**0.5**	**-**	**-**	**-**	**-**	**0.2**	**-**	**-**	**1.2**	**-**	**1.9**
1143/3/1	**5**	**-**	**-**	**-**	**-**	**-**	**-**	**0.2**	**-**	**0.2**	**1.4**	**-**	**1.7**
1143/4/1	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**0.2**	**-**	**0.2**	**1.4**	**-**	**1.7**
1035/3/1	**1**	**-**	**0.2**	**0.1**	**0.1**	**-**	**-**	**0.5**	**0.2**	**0.1**	**0.1**	**0.1**	**1.3**
1096/4/1	2	-	0.3	-	-	-	-	0.1	-	-	0.8	-	1.2
1163/4/1	2	-	0.1	-	0.1	-	-	0.4	-	0.5	-	-	1.1

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of domestic fruit for the infant age group based on the 6 high-rate consumers is 2.1 kg y^{-1}

The observed 97.5th percentile rate based on 8 observations is 3.5 kg y^{-1}

Table 32. Children's and infants' consumption rates of cattle meat from the Amersham terrestrial survey area (kg y $^{-1}$)

Child age group (6 - 15 years old)

Person ID number	Age	Beef
1121/5/1	12	12.5
1121/6/1	10	12.5
1121/7/1	9	9.4
1121/8/1	8	9.4

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of cattle meat for the child age group based on the 4 high-rate consumers is 10.9 kg y $^{-1}$

The observed 97.5th percentile rate based on 4 observations is 12.5 kg y^{-1}

Infant age group (0 - 5 years old)

Person ID number	Age	Beef
1121/9/1	3	6.3

Notes

The emboldened observation is the high-rate consumer

The mean consumption rate of cattle meat for the infant age group based on the 1 high-rate consumer is 6.2 kg y $^{-1}$

The observed 97.5th percentile is not applicable for 1 observation

Table 33. Children's consumption rates of sheep meat from the Amersham terrestrial survey area (kg y $^{-1}$)

Child age group (6 - 15 years old)

Person ID number	Age	Lamb
1156/3/1	8	7.9

Notes

The emboldened observation is the high-rate consumer

The mean consumption rate of sheep meat for the child age group based on the 1 high-rate consumer is 7.9 kg y $^{-1}$

The observed 97.5th percentile is not applicable for 1 observation

Table 34. Children's and infants' consumption rates of eggs from the Amersham terrestrial survey area (kg y^{-1})

Child age group (6 - 15 years old)

Person ID number	Age	Chicken egg
1101/5/1	**6**	**16.8**
1145/4/1	**11**	**10.7**
1145/5/1	**10**	**10.7**
1156/3/1	**8**	**7.1**
1121/5/1	**12**	**5.9**
1121/6/1	**10**	**5.9**
1121/7/1	9	4.5
1121/8/1	8	4.5

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of eggs for the child age group based on the 6 high-rate consumers is 9.5 kg y^{-1}

The observed 97.5th percentile rate based on 8 observations is 15.7 kg y^{-1}

Infant age group (0 - 5 years old)

Person ID number	Age	Chicken egg
1143/3/1	**5**	**11.9**
1143/4/1	**3**	**11.9**
1121/9/1	3	3.0

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of eggs for the infant age group based on the 2 high-rate consumers is 11.9 kg y^{-1}

The observed 97.5th percentile rate based on 3 observations is 11.9 kg y^{-1}

Table 35. Children's and infants' consumption rates of wild/free foods from the Amersham terrestrial survey area (kg y^{-1})

Child age group (6 - 15 years old)

Person ID number	Age	Blackberry	Elderflower	Total
1145/4/1	**11**	**1.0**	**-**	**1.0**
1145/5/1	**10**	**1.0**	**-**	**1.0**
1134/3/1	**11**	**0.7**	**-**	**0.7**
1149/3/1	**9**	**0.4**	**-**	**0.4**
1149/4/1	**7**	**0.4**	**-**	**0.4**
1101/5/1	**6**	**-**	**0.4**	**0.4**
1163/3/1	12	0.2	-	0.2

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of wild/free foods for the child age group based on the 6 high-rate consumers is 0.7 kg y^{-1}

The observed 97.5th percentile rate based on 7 observations is 1.0 kg y^{-1}

Infant age group (0 - 5 years old)

Person ID number	Age	Blackberry	Elderflower	Total
1090/4/1	**5**	**0.3**	**-**	**0.3**
1090/5/1	**3**	**0.3**	**-**	**0.3**
1163/4/1	**2**	**0.1**	**-**	**0.1**

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of wild/free foods for the infant age group based on the 3 high-rate consumers is 0.2 kg y^{-1}

The observed 97.5th percentile rate based on 3 observations is 0.3 kg y^{-1}

Table 36. Children's consumption rates of honey from the Amersham terrestrial survey area (kg y^{-1})

Child age group (6 - 15 years old)

Person ID number	Age	Honey
1101/5/1	**6**	**4.1**
1121/5/1	**12**	**3.9**
1121/6/1	**10**	**3.9**
1121/7/1	**9**	**3.0**
1121/8/1	**8**	**3.0**
1156/3/1	8	0.4

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of honey for the child age group based on the 5 high-rate consumers is 3.6 kg y^{-1}

The observed 97.5th percentile rate based on 6 observations is 4.1 kg y^{-1}

Infant age group (0 - 5 years old)

Person ID number	Age	Honey
1121/9/1	**3**	**2.0**

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of honey for the infant age group based on the 1 high-rate consumer is 2.0 kg y^{-1}

The observed 97.5th percentile is not applicable for 1 observation

Table 37. Children's consumption rates of freshwater fish from the Amersham terrestrial survey area (kg y^{-1})

Child age group (6 - 15 years old)

Person ID number	Age	Rainbow trout
1121/5/1	**12**	**0.4**
1121/6/1	**10**	**0.4**
1121/7/1	**9**	**0.3**
1121/8/1	**8**	**0.3**

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of freshwater fish for the child age group based on the 4 high-rate consumers is 0.4 kg y^{-1}

The observed 97.5th percentile rate based on 4 observations is 0.4 kg y^{-1}

Table 38. Percentage contribution each food type makes to its terrestrial food group for adults

Green vegetables	
Courgette	30.65 %
Cabbage	16.41 %
Broccoli	10.26 %
Brussel sprout	9.55 %
Cucumber	8.44 %
Cauliflower	7.03 %
Marrow	5.99 %
Lettuce	4.24 %
Kale	2.64 %
Calabrese	1.62 %
Spinach	1.03 %
Asparagus	0.87 %
Artichoke	0.72 %
Herbs	0.35 %
Rocket	0.23 %
Other vegetables	
Tomato	26.18 %
Runner bean	25.09 %
Broad bean	12.64 %
Pea	10.33 %
Squash	8.91 %
Sweetcorn	7.80 %
French bean	6.99 %
Mangetout	1.10 %
Aubergine	0.97 %
Root vegetables	
Onion	26.65 %
Leek	17.79 %
Beetroot	17.40 %
Parsnip	11.07 %
Carrot	8.46 %
Turnip	6.65 %
Swede	6.63 %
Shallot	2.95 %
Spring onion	0.82 %
Garlic	0.59 %
Celery	0.59 %
Celeriac	0.31 %
Fennel	0.09 %
Potato	
Potato	100.00 %
Domestic fruit	
Strawberry	21.94 %
Raspberry	17.88 %
Apple	16.62 %
Blackcurrant	9.82 %
Plum	8.57 %
Rhubarb	8.43 %
Redcurrant	5.81 %
Gooseberry	3.59 %
Pear	2.07 %
Blackberry	1.36 %
Blueberry	1.04 %
Loganberry	1.02 %
White currant	0.64 %
Worcesterberry	0.35 %
Cherry	0.31 %
Damson	0.21 %
Fig	0.19 %
Greengage	0.15 %
Milk	
Goats' milk	55.12 %
Cows' milk	44.88 %
Cattle Meat	
Beef	100.00 %
Pig meat	
Pork	100.00 %
Sheep meat	
Lamb	100.00
Poultry	
Pheasant	50.00 %
Chicken	44.87 %
Partridge	5.13 %
Eggs	
Chicken egg	95.36 %
Duck egg	4.64 %
Wild/free foods	
Blackberry	79.47 %
Sloe	12.94 %
Elderberry	3.23 %
Elderflower	2.85 %
Hazel nut	0.81 %
Nettle	0.36 %
Dandelion leaves	0.36 %
Rabbits/hares	
Rabbit	100.00 %
Honey	
Honey	100.00 %
Wild fungi	
Mushrooms	100.00 %
Freshwater fish	
Rainbow trout	100.00 %
Freshwater crustaceans	
Crayfish	100.00 %
Fresh water plants	
Watercress	100.00 %

Notes

Percentages are based on the consumption of all adults in the survey consuming that particular food group.

Table 39. Direct radiation occupancy rates for adults, children and infants in the Amersham area (h y^{-1})

Person ID number	Gender	Age	Main activity	Indoor occupancy	Outdoor occupancy	Total occupancy
0 to 0.25 km zone						
1140/1/1	F	80	Residing	7847	548	8395
1141/1/1	F	74	Residing	7693	548	8241
1147/3/1	F	12	Residing	7404	730	8134
1142/1/1	U	85	Residing	7937	172	8109
1150/1/1	F	72	Residing	5110	2920	8030
1166/4/1	M	U	Residing	7827	183	8010
1041/1/1	F	U	Residing	6188	1790	7978
1165/1/1	F	40	Residing	7665	261	7926
1149/2/1	F	U	Residing	6768	1006	7774
1149/1/1	M	U	Residing	6131	1642	7774
1087/2/1	F	51	Residing	7213	509	7722
1165/2/1	M	21	Residing	7613	104	7717
1138/1/1	F	71	Residing	6040	1644	7684
1041/3/1	F	3	Residing	6918	716	7634
1146/1/1	M	85	Residing	6693	914	7607
1146/2/1	F	80	Residing	6693	914	7607
1097/1/1	M	81	Residing	6456	1096	7552
1097/2/1	F	79	Residing	6121	1431	7552
1144/1/1	M	68	Residing	6414	1095	7509
1144/2/1	F	67	Residing	6414	1095	7509
1086/3/1	M	4	Residing	6607	659	7265
1086/4/1	M	2	Residing	6607	659	7265
1086/1/1	F	37	Residing	6541	659	7199
1132/1/1	M	70	Residing	6645	461	7106
1132/2/1	F	U	Residing	6968	138	7106
1139/1/1	F	60	Residing	6880	197	7077
1139/2/1	M	67	Residing	6684	393	7077
1049/1/1	F	38	Residing	5892	1043	6935
1049/4/1	F	7	Residing	5852	1043	6895
1049/5/1	M	6	Residing	5852	1043	6895
1093/4/1	F	12	Residing	6165	730	6895
1165/3/1	M	13	Residing	6634	261	6895
1165/4/1	F	11	Residing	6634	261	6895
1147/4/1	M	10	Residing	6101	730	6831
1147/5/1	M	7	Residing	6101	730	6831
1087/3/1	M	17	Residing	6669	150	6820
1087/4/1	M	14	Residing	6669	150	6820
1041/2/1	M	8	Residing	6016	716	6732
1041/4/1	F	5	Residing	6016	716	6732
1049/2/1	M	38	Residing	6153	521	6674
1145/2/1	F	48	Residing	6496	157	6652
1092/1/1	F	41	Residing	6095	516	6611
1145/5/1	M	10	Residing	5617	822	6439
1092/2/1	M	11	Residing	5921	516	6437
1092/3/1	F	15	Residing	5921	516	6437
1093/3/1	M	18	Residing	5704	730	6434
1166/3/1	M	17	Residing	6062	344	6406
1049/3/1	M	11	Residing	5331	1043	6374
1085/2/1	M	77	Residing	6015	329	6344
1149/3/1	M	9	Residing	5264	1006	6270
1149/4/1	F	7	Residing	5264	1006	6270

Table 39. Direct radiation occupancy rates for adults, children and infants in the Amersham area (h y^{-1})

Person ID number	Gender	Age	Main activity	Indoor occupancy	Outdoor occupancy	Total occupancy
1085/1/1	F	75	Residing	5723	447	6170
1147/2/1	F	39	Residing	5970	183	6153
1145/4/1	M	11	Residing	5590	548	6138
1143/4/1	F	3	Residing	5360	731	6091
1098/1/1	M	54	Residing	5206	842	6048
1098/2/1	F	53	Residing	5206	842	6048
1166/2/1	F	U	Residing	5862	183	6045
1157/1/1	M	69	Residing	4763	1264	6027
1157/2/1	F	68	Residing	4763	1264	6027
1143/3/1	M	5	Residing	5291	731	6022
1166/1/1	F	U	Residing	5834	183	6017
1145/3/1	F	27	Residing	5296	674	5970
1086/2/1	M	57	Residing	5653	157	5810
1093/2/1	F	47	Residing	5150	469	5619
1147/1/1	M	43	Residing	5345	183	5527
1142/2/1	M	43	Residing	4017	1369	5386
1143/1/1	M	36	Residing	4483	731	5214
1087/1/1	M	51	Residing	4503	509	5012
1143/2/1	F	35	Residing	4253	731	4984
1093/1/1	M	50	Residing	4430	469	4899
1145/1/1	M	51	Residing	4411	157	4567
1146/3/1	M	U	Visiting	2294	209	2503
1052/1/1	M	U	Working	1762	118	1880
1052/1/2	M	U	Working	1762	118	1880
1052/1/3	M	U	Working	1762	118	1880
1052/1/4	M	U	Working	1762	118	1880
1052/1/5	M	U	Working	1762	118	1880
1052/3/1	F	U	Working	1762	118	1880
1053/1/1	U	U	Working	1725	115	1840
1053/1/2	U	U	Working	1725	115	1840
1053/1/3	U	U	Working	1725	115	1840
1053/1/4	U	U	Working	1725	115	1840
1053/1/5	U	U	Working	1725	115	1840
1053/3/1	U	U	Working	1610	230	1840
1053/3/2	U	U	Working	1610	230	1840
1053/3/3	U	U	Working	1610	230	1840
1053/3/4	U	U	Working	1610	230	1840
1053/3/5	U	U	Working	1610	230	1840
1053/3/6	U	U	Working	1610	230	1840
1055/1/1	U	U	Working	1716	47	1762
1055/1/2	U	U	Working	1716	47	1762
1055/1/3	U	U	Working	1716	47	1762
1055/1/4	U	U	Working	1716	47	1762
1055/1/5	U	U	Working	1716	47	1762
1055/1/6	U	U	Working	1716	47	1762
1055/1/7	U	U	Working	1716	47	1762
1055/1/8	U	U	Working	1716	47	1762
1055/1/9	U	U	Working	1716	47	1762
1055/1/10	U	U	Working	1716	47	1762
1055/1/11	U	U	Working	1716	47	1762
1055/1/12	U	U	Working	1716	47	1762
1055/1/13	U	U	Working	1716	47	1762

Table 39. Direct radiation occupancy rates for adults, children and infants in the Amersham area (h y^{-1})

Person ID number	Gender	Age	Main activity	Indoor occupancy	Outdoor occupancy	Total occupancy
1055/1/14	U	U	Working	1716	47	1762
1055/1/15	U	U	Working	1716	47	1762
1055/1/16	U	U	Working	1716	47	1762
1055/1/17	U	U	Working	1716	47	1762
1055/1/18	U	U	Working	1716	47	1762
1055/1/19	U	U	Working	1716	47	1762
1055/1/20	U	U	Working	1716	47	1762
1054/1/1	U	U	Working	1679	46	1725
1054/1/2	U	U	Working	1679	46	1725
1054/1/3	U	U	Working	1679	46	1725
1054/1/4	U	U	Working	1679	46	1725
1054/1/5	U	U	Working	1679	46	1725
1054/1/6	U	U	Working	1679	46	1725
1054/1/7	U	U	Working	1679	46	1725
1054/1/8	U	U	Working	1679	46	1725
1054/1/9	U	U	Working	1679	46	1725
1054/1/10	U	U	Working	1679	46	1725
1054/1/11	U	U	Working	1679	46	1725
1054/1/12	U	U	Working	1679	46	1725
1054/1/13	U	U	Working	1679	46	1725
1054/1/14	U	U	Working	1679	46	1725
1054/1/15	U	U	Working	1679	46	1725
1054/1/16	U	U	Working	1679	46	1725
1054/1/17	U	U	Working	1679	46	1725
1054/1/18	U	U	Working	1679	46	1725
1054/1/19	U	U	Working	1679	46	1725
1054/1/20	U	U	Working	1679	46	1725
1051/1/1	M	U	Working	1495	230	1725
1051/1/2	M	U	Working	1495	230	1725
1051/1/3	M	U	Working	1495	230	1725
1051/1/4	M	U	Working	1495	230	1725
1051/1/5	M	U	Working	1495	230	1725
1051/1/6	M	U	Working	1495	230	1725
1051/1/7	M	U	Working	1495	230	1725
1051/1/8	M	U	Working	1495	230	1725
1051/1/9	M	U	Working	1495	230	1725
1051/1/10	M	U	Working	1495	230	1725
1051/1/11	M	U	Working	1495	230	1725
1051/1/12	M	U	Working	1495	230	1725
1051/1/13	M	U	Working	1495	230	1725
1051/1/14	M	U	Working	1495	230	1725
1051/1/15	M	U	Working	1495	230	1725
1051/1/16	M	U	Working	1495	230	1725
1051/1/17	M	U	Working	1495	230	1725
1051/1/18	M	U	Working	1495	230	1725
1051/1/19	M	U	Working	1495	230	1725
1051/1/20	M	U	Working	1495	230	1725
1051/1/21	M	U	Working	1495	230	1725
1051/1/22	M	U	Working	1495	230	1725
1051/1/23	M	U	Working	1495	230	1725
1051/1/24	M	U	Working	1495	230	1725
1051/2/1	F	U	Working	1495	230	1725

Table 39. Direct radiation occupancy rates for adults, children and infants in the Amersham area (h y^{-1})

Person ID number	Gender	Age	Main activity	Indoor occupancy	Outdoor occupancy	Total occupancy
1051/2/2	F	U	Working	1495	230	1725
1051/2/3	F	U	Working	1495	230	1725
1051/2/4	F	U	Working	1495	230	1725
1051/2/5	F	U	Working	1495	230	1725
1051/2/6	F	U	Working	1495	230	1725
1052/2/1	F	U	Working	870	118	987
1052/2/2	F	U	Working	870	118	987
1054/2/1	U	U	Working	874	46	920
1054/2/2	U	U	Working	874	46	920
1054/2/3	U	U	Working	874	46	920
1054/2/4	U	U	Working	874	46	920
1054/2/5	U	U	Working	874	46	920
1054/2/6	U	U	Working	874	46	920
1054/2/7	U	U	Working	874	46	920
1054/2/8	U	U	Working	874	46	920
1054/2/9	U	U	Working	874	46	920
1054/2/10	U	U	Working	874	46	920
1143/5/1	F	37	Working	717	117	834
1053/2/1	U	U	Working	690	115	805
1053/2/2	U	U	Working	690	115	805
1053/2/3	U	U	Working	690	115	805
1053/2/4	U	U	Working	690	115	805
1055/2/1	U	U	Working	705	47	752
1055/2/2	U	U	Working	705	47	752
1055/2/3	U	U	Working	705	47	752
1055/2/4	U	U	Working	705	47	752
1055/2/5	U	U	Working	705	47	752
1055/2/6	U	U	Working	705	47	752
1055/2/7	U	U	Working	705	47	752
1055/2/8	U	U	Working	705	47	752
1055/2/9	U	U	Working	705	47	752
1055/2/10	U	U	Working	705	47	752
1146/4/1	M	U	Visiting	220	20	240
>0.25 to 0.5 km zone						
1133/1/1	M	80	Residing	8395	209	8604
1083/2/1	M	76	Residing	8264	313	8578
1164/2/1	F	67	Residing	8029	418	8447
1164/3/1	M	77	Residing	8029	418	8447
1083/1/1	F	81	Residing	8264	131	8395
1136/2/1	F	80	Residing	7321	702	8023
1164/1/1	M	47	Residing	7518	256	7774
1135/2/1	F	35	Residing	6368	1053	7421
1134/1/1	F	50	Residing	7196	176	7371
1135/3/1	F	1	Residing	7195	176	7371
1136/1/1	M	74	Residing	6268	1053	7321
1046/1/1	M	81	Residing	6963	235	7198
1046/2/1	F	74	Residing	6963	235	7198
1135/1/1	M	35	Residing	6647	330	6977
1047/2/1	F	U	Residing	6162	481	6644
1134/3/1	F	11	Residing	6191	287	6478
1047/3/1	F	5	Residing	5705	241	5946
1047/4/1	F	6	Residing	5705	241	5946

Table 39. Direct radiation occupancy rates for adults, children and infants in the Amersham area (h y^{-1})

Person ID number	Gender	Age	Main activity	Indoor occupancy	Outdoor occupancy	Total occupancy
1047/1/1	M	U	Residing	5029	96	5125
1134/2/1	F	16	Residing	4794	144	4937
1057/1/1	U	U	Working	1716	47	1762
1057/1/2	U	U	Working	1716	47	1762
1057/1/3	U	U	Working	1716	47	1762
1057/1/4	U	U	Working	1716	47	1762
1057/1/5	U	U	Working	1716	47	1762
1057/1/6	U	U	Working	1716	47	1762
1057/1/7	U	U	Working	1716	47	1762
1057/1/8	U	U	Working	1716	47	1762
1057/1/9	U	U	Working	1716	47	1762
1057/1/10	U	U	Working	1716	47	1762
1057/1/11	U	U	Working	1716	47	1762
1057/1/12	U	U	Working	1716	47	1762
1094/1/1	M	U	Tending allotment plot	-	489	489
1094/2/1	F	U	Tending allotment plot	-	489	489
1096/1/1	M	32	Tending allotment plot	-	195	195
1096/2/1	F	32	Tending allotment plot	-	195	195
1095/1/1	M	U	Tending allotment plot	-	168	168
1095/2/1	F	U	Tending allotment plot	-	168	168
1042/1/1	M	55	Tending allotment plot	-	104	104
1042/2/1	F	55	Tending allotment plot	-	104	104
>0.5 to 1.0 km zone						
1027/2/1	F	65	Residing	8123	100	8223
1027/3/1	F	U	Residing	8123	100	8223
1027/1/1	M	65	Residing	7622	602	8223
1156/2/1	F	37	Residing	6059	2148	8207
1156/1/1	M	37	Residing	5343	2864	8207
1048/2/1	F	46	Residing	6904	1279	8183
1048/3/1	F	2	Residing	6904	1279	8183
1091/2/1	F	60	Residing	7644	412	8056
1025/2/1	F	50	Residing	7114	913	8027
1018/1/1	F	64	Residing	7630	196	7826
1090/5/1	F	3	Residing	7120	678	7798
1090/2/1	F	38	Residing	7103	678	7781
1018/2/1	F	29	Residing	7678	65	7744
1167/2/1	M	61	Residing	7301	95	7396
1039/1/1	F	55	Residing	7109	182	7292
1091/1/1	M	61	Residing	7078	196	7274
1039/2/1	M	56	Residing	7204	52	7256
1090/4/1	F	5	Residing	6358	678	7036
1026/1/1	M	62	Residing	6732	300	7032
1156/3/1	F	8	Residing	5550	1432	6982
1025/3/1	F	26	Residing	6834	98	6932
1089/1/1	M	51	Residing	6410	497	6907
1089/2/1	F	41	Residing	6410	497	6907
1090/3/1	F	17	Residing	6045	678	6723
1048/4/1	F	15	Residing	6403	153	6557
1048/5/1	M	12	Residing	6250	307	6557
1026/2/1	F	53	Residing	6171	275	6446
1167/1/1	F	46	Residing	6251	183	6433
1048/1/1	M	51	Residing	5623	716	6339

Table 39. Direct radiation occupancy rates for adults, children and infants in the Amersham area (h y^{-1})

Person ID number	Gender	Age	Main activity	Indoor occupancy	Outdoor occupancy	Total occupancy
1026/3/1	M	12	Residing	5763	462	6225
1090/1/1	M	42	Residing	5505	678	6183
1025/4/1	M	25	Residing	5913	251	6164
1089/3/1	F	15	Residing	5633	497	6130
1025/1/1	M	58	Residing	4593	391	4985
1156/4/1	M	17	Working	240	1680	1920
1056/1/1	U	U	Working	1645	118	1762
1056/1/2	U	U	Working	1645	118	1762
1056/1/3	U	U	Working	1645	118	1762
1056/1/4	U	U	Working	1645	118	1762
1056/1/5	U	U	Working	1645	118	1762
1056/1/6	U	U	Working	1645	118	1762
1056/1/7	U	U	Working	1645	118	1762
1056/1/8	U	U	Working	1645	118	1762
1056/1/9	U	U	Working	1645	118	1762
1056/1/10	U	U	Working	1645	118	1762
1156/5/1	M	U	Working	240	1344	1584
1056/2/1	U	U	Working	705	118	822
1056/2/2	U	U	Working	705	118	822
1056/2/3	U	U	Working	705	118	822
1056/2/4	U	U	Working	705	118	822

Table 40. Analysis of direct radiation occupancy rates for adults, children and infants in the Amersham area (h y^{-1})

0 to 0.25 km zone	
Number of hours	**Number of observations**
>8000 to 8760	6
>7000 to 8000	21
>6000 to 7000	35
>5000 to 6000	7
>4000 to 5000	3
>3000 to 4000	0
>2000 to 3000	1
>1000 to 2000	87
0 to 1000	28
0 to 8760	**188**

>0.25 to 0.5 km zone	
Number of hours	**Number of observations**
>8000 to 8760	6
>7000 to 8000	7
>6000 to 7000	3
>5000 to 6000	3
>4000 to 5000	1
>3000 to 4000	0
>2000 to 3000	0
>1000 to 2000	12
0 to 1000	8
0 to 8760	**40**

>0.5 to 1.0 km zone	
Number of hours	**Number of observations**
>8000 to 8760	9
>7000 to 8000	10
>6000 to 7000	14
>5000 to 6000	0
>4000 to 5000	1
>3000 to 4000	0
>2000 to 3000	0
>1000 to 2000	12
0 to 1000	4
0 to 8760	**50**

Table 41. Gamma dose rate measurements for the Amersham direct radiation survey area (µGy h^{-1})

Residences and businesses

Location	Indoor substrate	Indoor gamma dose rate at 1 metre[a b]	Outdoor substrate	Outdoor gamma dose rate at 1 metre[a]
Residence 1	Wood	0.058	Grass	0.066
Residence 2	Concrete	0.061	Grass	0.066
Residence 3	Concrete	0.080	Grass	0.066
Residence 4	Not taken	Not taken	Grass	0.073
Residence 5	Not taken	Not taken	Grass	0.091
Residence 6	Concrete	0.079	Tarmac	0.067
Residence 7	Concrete	0.077	Grass	0.067
Residence 8	Concrete	0.079	Grass	0.078
Residence 9	Concrete	0.071	Grass	0.063
Residence 10	Concrete	0.074	Grass	0.070
Residence 11	Concrete	0.074	Grass	0.075
Residence 12	Not taken	Not taken	Concrete	0.070
Residence 13	Concrete	0.054	Concrete	0.071
Residence 14	Concrete	0.087	Grass	0.065
Residence 15	Concrete	0.073	Grass	0.076
Residence 16	Not taken	Not taken	Concrete	0.060
Residence 17	Concrete	0.081	Grass	0.102
Residence 18	Not taken	Not taken	Concrete	0.070
Residence 19	Not taken	Not taken	Concrete	0.060
Residence 20	Not taken	Not taken	Concrete	0.067
Residence 21	Not taken	Not taken	Concrete	0.070
Residence 22	Not taken	Not taken	Stones	0.082
Residence 23	Wood	0.067	Grass	0.071
Residence 24	Not taken	Not taken	Stones	0.066
Residence 25	Wood	0.098	Grass	0.079
Residence 26	Concrete	0.062	Grass	0.072
Residence 27	Concrete	0.088	Grass	0.083
Residence 28	Concrete	0.073	Concrete	0.071
Residence 29	Concrete	0.064	Grass	0.069
Residence 30	Concrete	0.090	Grass	0.078
Residence 31	Concrete	0.068	Tarmac	0.071
Residence 32	Not taken	Not taken	Concrete	0.069
Residence 33	Not taken	Not taken	Grass	0.078
Residence 34	Not taken	Not taken	Concrete	0.077
Residence 35	Not taken	Not taken	Concrete	0.086
Residence 36	Wood	0.092	Concrete	0.070
Residence 37	Concrete	0.103	Grass	0.067
Residence 38	Wood	0.093	Grass	0.072
Residence 39	Wood	0.101	Grass	0.074
Residence 40	Concrete	0.091	Grass	0.072
Residence 42	Concrete	0.089	Grass	0.067
Business 1	Not taken	Not taken	Grass	0.067
Business 2	Not taken	Not taken	Concrete	0.073
Business 3	Concrete	0.073	Concrete	0.076
Business 4	Concrete	0.068	Concrete	0.077
Business 5	Not taken	Not taken	Concrete	0.084
Business 6	Not taken	Not taken	Tarmac	0.067

Table 41. Gamma dose rate measurements for the Amersham direct radiation survey area (μGy h^{-1})

Residences and businesses

Location	Indoor substrate	Indoor gamma dose rate at 1 metre[a b]	Outdoor substrate	Outdoor gamma dose rate at 1 metre[a]
Business 7	Not taken	Not taken	Tarmac	0.091

Backgrounds

	Location	National Grid Reference	Substrate	Gamma dose rate at 1 metre
Background 1	Chalfont-St-Peter	SU 990 911	Grass	0.061
Background 2	Near Little Missenden	SU 923 993	Mud	0.058
Background 3	Near Bovingdon	SP 998 044	Grass	0.073

Notes

[a] These measurements have not been adjusted for background dose rates

[b] Gamma dose rate measurements were not taken at properties where the interviews were conducted outdoors

Table 42. Combinations of adult pathways for consideration in dose assessments in the Amersham area

Combination number	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle Meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous discharges)	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-solids	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1																			X							
2								X		X	X															
3	X	X		X	X		X			X	X		X	X		X										
4	X	X	X	X	X																				X	X
5	X	X	X	X	X			X			X															
6								X	X					X												
7								X	X	X																
8																				X			X			
9																				X				X		
10												X						X							X	X
11	X	X		X	X						X	X													X	X
12	X	X	X		X							X													X	X
13	X	X	X	X	X	X					X	X		X												
14									X		X	X		X											X	X
15					X					X	X	X			X										X	X
16	X	X	X	X	X				X	X	X	X	X		X											
17		X		X	X						X	X			X	X	X			X					X	X

Notes

The food groups and external pathways marked with a cross are combined for the corresponding combination number. For example, combination number 1 represents an individual (or individuals) from Annex 1 who had positive data for canal bank occupancy over grass.

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1007/1/1	M	67	-	-	-	-	-	-	-	**25.3**	5.7	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1007/2/1	F	59	-	-	-	-	-	-	-	**25.3**	5.7	-	-	-	-	**3.6**	-	-	-	-	-	-	-	-	-	-	-	-
1010/1/1	M	78	3.2	8.6	2.7	7.5	8.4	-	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1010/2/1	F	72	3.2	8.6	2.7	7.5	8.4	-	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1016/1/1	M	72	-	2.7	-	27.3	-	-	-	-	**17.0**	1.3	**17.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1016/2/1	F	72	-	2.7	-	27.3	-	-	-	-	**17.0**	1.3	**17.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1016/3/1	F	U	-	-	-	-	-	-	-	-	**17.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1016/3/2	F	U	-	-	-	-	-	-	-	-	**17.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1016/4/1	M	U	-	-	-	-	-	-	-	-	**17.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1016/4/2	M	U	-	-	-	-	-	-	-	-	**17.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1018/1/1	F	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7630	196
1018/2/1	F	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7678	65
1023/1/1	M	68	5.2	5.6	5.8	19.4	5.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1023/2/1	F	62	5.2	5.6	5.8	19.4	5.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1025/1/1	M	58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4593	391
1025/2/1	F	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7114	913
1025/3/1	F	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6834	98
1025/4/1	M	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5913	251
1026/1/1	M	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6732	300
1026/2/1	F	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6171	275
1027/1/1	M	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7622	602
1027/2/1	F	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8123	100
1027/3/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8123	100
1029/1/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	-	-

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1029/1/2	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	-
1029/1/3	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	-
1030/1/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-
1030/2/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-
1034/1/1	F	56	**15.8**	**12.1**	7.1	20.5	**13.7**	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1034/2/1	M	67	**15.8**	**12.1**	7.1	20.5	**13.7**	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1034/3/1	M	23	**15.8**	**12.1**	7.1	20.5	**13.7**	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1034/4/1	M	18	**15.8**	**12.1**	7.1	20.5	**13.7**	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1035/1/1	M	U	3.4	3.0	4.7	5.8	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1035/1/2	M	U	3.4	3.0	4.7	5.8	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1035/1/3	M	U	3.4	3.0	4.7	5.8	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1035/1/4	M	U	3.4	3.0	4.7	5.8	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1035/2/1	F	U	3.4	3.0	4.7	5.8	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1035/2/2	F	U	3.4	3.0	4.7	5.8	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1035/2/3	F	U	3.4	3.0	4.7	5.8	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1035/2/4	F	U	3.4	3.0	4.7	5.8	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1036/1/1	F	59	4.5	4.3	7.5	-	**27.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1036/2/1	F	U	0.6	0.6	1.1	-	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1036/3/1	M	U	0.6	0.6	1.1	-	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1036/3/2	M	U	0.6	0.6	1.1	-	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1038/1/1	M	U	-	-	-	-	-	-	-	-	-	-	5.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1038/2/1	F	U	-	-	-	-	-	-	-	-	-	-	5.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1039/1/1	F	55	-	-	-	-	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7109	182
1039/2/1	M	56	-	-	-	-	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7204	52

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1041/1/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6188	1790
1042/1/1	M	55	7.9	3.8	3.6	-	**12.2**	-	-	-	-	-	-	**4.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	104
1042/2/1	F	55	7.9	3.8	3.6	-	**12.2**	-	-	-	-	-	-	**4.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	104
1045/1/1	F	U	2.1	4.5	8.1	28.2	**13.6**	-	-	-	-	-	**30.8**	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1045/2/1	F	U	2.1	4.5	8.1	28.2	**13.6**	-	-	-	-	-	**30.8**	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1045/3/1	F	U	2.1	4.5	8.1	28.2	**13.6**	-	-	-	-	-	**30.8**	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1045/4/1	M	U	2.1	4.5	8.1	28.2	**13.6**	-	-	-	-	-	**30.8**	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1046/1/1	M	81	6.9	**11.3**	13.6	13.6	7.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6963	235
1046/2/1	F	74	6.9	**11.3**	13.6	13.6	7.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6963	235
1047/1/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5029	96
1047/2/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6162	481
1048/1/1	M	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5623	716
1048/2/1	F	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6904	1279
1049/1/1	F	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5892	1043
1049/2/1	M	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6153	521
1051/1/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/2	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/3	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/4	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/5	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/6	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/7	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/8	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/9	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1051/1/10	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/11	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/12	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/13	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/14	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/15	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/16	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/17	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/18	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/19	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/20	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/21	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/22	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/23	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/1/24	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/2/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/2/2	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/2/3	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/2/4	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/2/5	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/2/6	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1052/1/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1762	118
1052/1/2	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1762	118
1052/1/3	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1762	118

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1052/1/4	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1762	118
1052/1/5	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1762	118
1052/2/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	870	118
1052/2/2	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	870	118
1052/3/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1762	118
1053/1/1	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1725	115
1053/1/2	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1725	115
1053/1/3	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1725	115
1053/1/4	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1725	115
1053/1/5	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1725	115
1053/2/1	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	690	115
1053/2/2	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	690	115
1053/2/3	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	690	115
1053/2/4	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	690	115
1053/3/1	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1610	230
1053/3/2	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1610	230
1053/3/3	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1610	230
1053/3/4	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1610	230
1053/3/5	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1610	230
1053/3/6	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1610	230
1054/1/1	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/2	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/3	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/4	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1054/1/5	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/6	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/7	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/8	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/9	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/10	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/11	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/12	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/13	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/14	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/15	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/16	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/17	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/18	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/19	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/1/20	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1679	46
1054/2/1	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	874	46
1054/2/2	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	874	46
1054/2/3	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	874	46
1054/2/4	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	874	46
1054/2/5	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	874	46
1054/2/6	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	874	46
1054/2/7	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	874	46
1054/2/8	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	874	46

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1054/2/9	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	874	46
1054/2/10	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	874	46
1055/1/1	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/2	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/3	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/4	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/5	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/6	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/7	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/8	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/9	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/10	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/11	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/12	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/13	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/14	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/15	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/16	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/17	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/18	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/19	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/1/20	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1055/2/1	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	705	47
1055/2/2	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	705	47

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1055/2/3	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	705	47
1055/2/4	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	705	47
1055/2/5	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	705	47
1055/2/6	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	705	47
1055/2/7	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	705	47
1055/2/8	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	705	47
1055/2/9	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	705	47
1055/2/10	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	705	47
1056/1/1	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1645	118
1056/1/2	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1645	118
1056/1/3	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1645	118
1056/1/4	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1645	118
1056/1/5	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1645	118
1056/1/6	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1645	118
1056/1/7	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1645	118
1056/1/8	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1645	118
1056/1/9	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1645	118
1056/1/10	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1645	118
1056/2/1	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	705	118
1056/2/2	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	705	118
1056/2/3	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	705	118
1056/2/4	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	705	118
1057/1/1	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1057/1/2	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1057/1/3	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1057/1/4	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1057/1/5	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1057/1/6	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1057/1/7	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1057/1/8	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1057/1/9	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1057/1/10	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1057/1/11	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1057/1/12	U	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1716	47
1060/1/1	M	64	1.1	4.5	14.7	22.7	9.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1060/2/1	F	64	1.1	4.5	14.7	22.7	9.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1064/1/1	U	U	-	-	-	-	-	-	-	**9.5**	-	1.1	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1064/2/1	F	U	-	-	-	-	-	-	-	**9.5**	-	1.1	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1064/3/1	F	U	-	-	-	-	-	-	-	**9.5**	-	1.1	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1064/4/1	F	U	-	-	-	-	-	-	-	**9.5**	-	1.1	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1064/5/1	M	U	-	-	-	-	-	-	-	**9.5**	-	1.1	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1064/6/1	M	U	-	-	-	-	-	-	-	**9.5**	-	1.1	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1064/7/1	M	U	-	-	-	-	-	-	-	**9.5**	-	1.1	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1064/8/1	M	U	-	-	-	-	-	-	-	**9.5**	-	1.1	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1065/1/1	M	58	-	-	-	-	-	-	-	-	-	-	**41.6**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1067/1/1	M	86	2.3	-	-	-	1.1	-	-	-	-	-	6.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1067/2/1	M	57	2.3	-	-	-	1.1	-	-	-	-	-	6.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1067/3/1	F	56	2.3	-	-	-	1.1	-	-	-	-	-	6.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1067/4/1	F	21	2.3	-	-	-	1.1	-	-	-	-	-	6.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1069/1/1	M	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	-	-	-	315	-	-
1069/2/1	F	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	-	-	-	315	-	-
1070/1/1	M	58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	137	-	-	-	1397	-	-
1070/2/1	M	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	137	-	-	-	1397	-	-
1071/1/1	M	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	116	-	-	-	-	-	-
1071/2/1	F	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	-
1072/1/1	F	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**365**	-	-	-	-	-	-
1072/2/1	M	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**365**	-	-	-	-	-	-
1073/1/1	M	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	-	-	-	261	-	-
1073/2/1	F	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	-	-	-	261	-	-
1073/4/1	M	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	261	-	-
1074/1/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	122	-	-
1074/2/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	245	-	-	-	-	-	-
1074/3/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	92	-	-	-	-	-	-
1075/1/1	M	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	183	-	-	-	6029	-	-
1076/1/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-
1077/1/1	M	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	200	-	-
1083/1/1	F	81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8264	131
1083/2/1	M	76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8264	313
1085/1/1	F	75	-	-	-	-	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5723	447
1085/2/1	M	77	-	-	-	-	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6015	329
1086/1/1	F	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6541	659
1086/2/1	M	57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5653	157

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1087/1/1	M	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4503	509
1087/2/1	F	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7213	509
1087/3/1	M	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6669	150
1089/1/1	M	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6410	497
1089/2/1	F	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6410	497
1090/1/1	M	42	-	1.3	-	-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	5505	678
1090/2/1	F	38	-	1.3	-	-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	7103	678
1090/3/1	F	17	-	1.3	-	-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	6045	678
1091/1/1	M	61	-	-	-	-	-	-	-	-	-	-	-	**1.8**	-	-	-	-	-	0.5	-	-	-	-	-	-	7078	196
1091/2/1	F	60	-	-	-	-	-	-	-	-	-	-	-	**1.8**	-	-	-	-	-	0.5	-	-	-	-	-	-	7644	412
1092/1/1	F	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6095	516
1093/1/1	M	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4430	469
1093/2/1	F	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5150	469
1093/3/1	M	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5704	730
1094/1/1	M	U	-	2.7	3.9	13.7	7.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	489
1094/2/1	F	U	-	2.7	3.9	13.7	7.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	489
1095/1/1	M	U	**9.7**	1.8	11.3	13.1	9.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	168
1095/2/1	F	U	**9.7**	1.8	11.3	13.1	9.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	168
1096/1/1	M	32	5.7	7.6	3.0	-	3.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	195
1096/2/1	F	32	5.7	7.6	3.0	-	3.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	195
1097/1/1	M	81	-	-	-	-	-	-	-	-	-	-	-	1.3	-	-	-	-	-	-	-	-	-	-	-	-	6456	1096
1097/2/1	F	79	-	-	-	-	-	-	-	-	-	-	-	1.3	-	-	-	-	-	-	-	-	-	-	-	-	6121	1431
1098/1/1	M	54	4.6	9.8	0.4	-	-	-	-	-	-	-	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	5206	842
1098/2/1	F	53	4.6	9.8	0.4	-	-	-	-	-	-	-	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	5206	842

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1100/1/1	F	58	2.2	**10.6**	19.2	**45.9**	8.8	-	-	**25.3**	-	-	**17.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1100/2/1	M	80	2.2	**10.6**	19.2	**45.9**	8.8	-	-	**25.3**	-	-	**17.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1100/3/1	M	25	2.2	**10.6**	19.2	**45.9**	8.8	-	-	**25.3**	-	-	**17.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1100/4/1	F	26	2.2	**10.6**	19.2	**45.9**	8.8	-	-	**25.3**	-	-	**17.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1101/1/1	M	40	**12.0**	1.6	3.0	-	10.3	-	-	-	-	-	**16.8**	**2.9**	-	**4.1**	-	-	-	-	-	-	-	-	-	-	-	-
1101/2/1	F	50	**12.0**	1.6	3.0	-	10.3	-	-	-	-	-	**16.8**	**2.9**	-	**4.1**	-	-	-	-	-	-	-	-	-	-	-	-
1101/3/1	F	26	**12.0**	1.6	3.0	-	10.3	-	-	-	-	-	**16.8**	0.4	-	**4.1**	-	-	-	-	-	-	-	-	-	-	-	-
1101/4/1	M	24	**12.0**	1.6	3.0	-	10.3	-	-	-	-	-	**16.8**	0.4	-	**4.1**	-	-	-	-	-	-	-	-	-	-	-	-
1102/1/1	F	18	**26.2**	9.1	**57.8**	**72.8**	**24.0**	-	-	-	**7.5**	0.8	**23.7**	1.3	**0.8**	-	0.8	-	-	-	-	-	-	-	-	-	-	-
1102/2/1	M	67	**26.2**	9.1	**57.8**	**72.8**	**24.0**	-	-	-	**7.5**	0.8	**23.7**	1.3	**0.8**	-	0.8	-	-	-	-	-	-	-	-	-	-	-
1102/3/1	F	65	**26.2**	9.1	**57.8**	**72.8**	**24.0**	-	-	-	**7.5**	0.8	**23.7**	1.3	**0.8**	-	0.8	-	-	-	-	-	-	-	-	-	-	-
1103/1/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**17.8**	-	-	-	-	-	-	-	-
1104/1/1	M	80	-	-	-	-	-	-	-	-	-	-	-	1.5	-	**5.4**	-	-	-	-	-	-	-	-	-	-	-	-
1104/2/1	F	74	-	-	-	-	-	-	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1120/1/1	M	58	-	-	-	-	-	**177.7**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1120/2/1	M	U	-	-	-	-	-	-	-	-	-	**2.7**	-	-	-	-	**1.0**	-	-	-	-	-	-	-	-	-	-	-
1120/3/1	M	U	-	-	-	-	-	-	-	-	-	1.3	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-
1120/4/1	F	U	-	-	-	-	-	-	-	-	-	1.3	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-
1121/1/1	M	69	0.6	3.1	-	5.0	7.5	-	**12.5**	-	-	**3.6**	**17.8**	-	**0.9**	0.5	-	0.7	-	-	-	-	-	-	-	-	-	-
1121/2/1	F	68	0.6	3.1	-	5.0	7.5	-	**12.5**	-	-	**3.6**	**17.8**	-	**0.9**	0.5	-	0.7	-	-	-	-	-	-	-	-	-	-
1121/3/1	F	U	0.6	3.1	-	5.0	7.5	-	**12.5**	-	-	-	5.9	-	-	**3.9**	-	0.4	-	-	-	-	-	-	-	-	-	-
1121/4/1	M	U	0.6	3.1	-	5.0	7.5	-	**12.5**	-	-	-	5.9	-	-	**3.9**	-	0.4	-	-	-	-	-	-	-	-	-	-
1122/1/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	-	-	104	-	-	-
1122/3/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	-	-	104	-	-	-

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1123/1/1	M	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	228	-	-	-	-	-	-
1124/1/1	F	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	176	-	-	-	-	-	-
1125/1/1	M	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	640	-	-
1125/2/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	640	-	-
1125/3/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	320	-	-
1125/4/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	320	-	-
1126/1/1	M	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**860**	-	-	-	7296	-	-
1127/1/1	M	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	-	-	-	572	-	-
1127/2/1	F	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	-	-	-	572	-	-
1128/1/1	M	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	-	-	-	1540	-	-
1128/2/1	F	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	-	-	-	1540	-	-
1129/1/1	M	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**190**	-	-	-	-	-	-	-
1130/1/1	F	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	183	-	-	-	-	-	-
1131/1/1	M	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	156	-	-	-	-	-	-
1131/2/1	F	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	78	-	-	-	-	-	-
1132/1/1	M	70	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	6645	461
1132/2/1	F	U	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	6968	138
1133/1/1	M	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8395	209
1134/1/1	F	50	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	7196	176
1134/2/1	F	16	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	4794	144
1135/1/1	M	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6647	330
1135/2/1	F	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6368	1053
1136/1/1	M	74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6268	1053
1136/2/1	F	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7321	702

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1137/1/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**8.8**	**0.3**	-	-	-	-	-	-	-	-	-
1137/2/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**8.8**	**0.3**	-	-	-	-	-	-	-	-	-
1138/1/1	F	71	-	-	-	-	2.9	-	-	-	-	**6.8**	**26.7**	**4.5**	-	-	**1.4**	-	-	-	-	-	-	-	-	-	6040	1644
1139/1/1	F	60	-	-	-	-	-	-	-	-	-	-	**17.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	6880	197
1139/2/1	M	67	-	-	-	-	-	-	-	-	-	-	**17.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	6684	393
1140/1/1	F	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7847	548
1141/1/1	F	74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7693	548
1142/1/1	U	85	-	-	-	-	-	-	-	-	-	-	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	7937	172
1142/2/1	M	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4017	1369
1143/1/1	M	36	2.0	4.7	-	-	3.4	-	-	-	-	-	**23.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	4483	731
1143/2/1	F	35	2.0	4.7	-	-	3.4	-	-	-	-	-	**23.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	4253	731
1143/5/1	F	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	717	117
1144/1/1	M	68	-	-	-	-	-	-	-	-	-	-	8.9	-	-	-	-	-	-	-	-	-	-	-	-	-	6414	1095
1144/2/1	F	67	-	-	-	-	-	-	-	-	-	-	8.9	-	-	-	-	-	-	-	-	-	-	-	-	-	6414	1095
1145/1/1	M	51	0.8	3.6	-	-	3.6	-	-	-	-	-	10.7	1.0	-	-	-	-	-	-	-	-	-	-	-	-	4411	157
1145/2/1	F	48	0.8	3.6	-	-	3.6	-	-	-	-	-	10.7	1.0	-	-	-	-	-	-	-	-	-	-	-	-	6496	157
1145/3/1	F	27	0.8	3.6	-	-	3.6	-	-	-	-	-	10.7	1.0	-	-	-	-	-	-	-	-	-	-	-	-	5296	674
1146/1/1	M	85	-	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6693	914
1146/2/1	F	80	-	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6693	914
1146/3/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2294	209
1146/4/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	220	20
1147/1/1	M	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5345	183
1147/2/1	F	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5970	183
1149/1/1	M	U	-	1.1	-	-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	6131	1642

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1149/2/1	F	U	-	1.1	-	-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	6768	1006
1150/1/1	F	72	-	7.3	-	18.1	**18.1**	-	-	-	-	-	**17.8**	**5.0**	-	-	**2.7**	2.8	**0.5**	-	-	24	-	-	-	-	5110	2920
1151/1/1	M	67	8.0	4.4	10.7	13.7	**15.6**	-	-	-	-	-	**17.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1151/2/1	F	66	8.0	4.4	10.7	13.7	**15.6**	-	-	-	-	-	**17.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1152/1/1	M	U	7.6	4.8	5.9	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1152/2/1	F	U	7.6	4.8	5.9	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1152/3/1	M	U	7.6	4.8	5.9	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1152/4/1	F	U	7.6	4.8	5.9	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1154/1/1	M	68	**25.1**	**18.5**	**30.6**	32.8	**30.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1155/1/1	F	75	**11.7**	9.4	6.9	3.4	**17.8**	-	-	-	-	-	9.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1155/2/1	M	75	**11.7**	9.4	6.9	3.4	**17.8**	-	-	-	-	-	9.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1155/3/1	F	U	**15.6**	**12.6**	9.2	4.6	**23.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1155/4/1	F	U	**15.6**	**12.6**	9.2	4.6	**23.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1155/5/1	M	U	**15.6**	**12.6**	9.2	4.6	**23.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1156/1/1	M	37	-	-	-	-	-	-	-	-	**10.5**	-	9.5	0.2	-	0.5	-	-	-	-	-	-	-	-	-	-	5343	2864
1156/2/1	F	37	-	-	-	-	-	-	-	-	**10.5**	-	9.5	0.2	-	0.5	-	-	-	-	-	-	-	-	-	-	6059	2148
1156/4/1	M	17	-	-	-	-	-	-	-	-	**10.5**	-	9.5	-	-	0.5	-	-	-	-	-	-	-	-	-	-	240	1680
1156/5/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240	1344
1157/1/1	M	69	6.2	7.7	-	6.0	7.6	-	-	-	-	-	1.7	**1.8**	-	-	-	-	-	-	-	-	-	-	-	-	4763	1264
1157/2/1	F	68	6.2	7.7	-	6.0	7.6	-	-	-	-	-	1.7	**1.8**	-	-	-	-	-	-	-	-	-	-	-	-	4763	1264
1158/1/1	F	74	**24.5**	**19.6**	10.5	8.2	3.0	**138.8**	-	-	-	-	10.3	1.4	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-
1158/2/1	F	74	**24.5**	**19.6**	10.5	8.2	3.0	**79.5**	-	-	-	-	10.3	1.4	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-
1159/1/1	M	67	**13.2**	9.3	11.1	7.5	9.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1159/2/1	F	64	**13.2**	9.3	11.1	7.5	9.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1160/1/1	F	74	**11.8**	**14.0**	**23.0**	34.1	**34.6**	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1160/2/1	M	72	**11.8**	**14.0**	**23.0**	34.1	**34.6**	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1161/1/1	M	62	**21.6**	**30.6**	11.3	**124.7**	7.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1161/2/1	F	63	**21.6**	**30.6**	11.3	**124.7**	7.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1162/1/1	M	60	**16.7**	7.2	3.4	29.8	**11.6**	-	-	-	-	-	13.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1162/2/1	F	60	**16.7**	7.2	3.4	29.8	**11.6**	-	-	-	-	-	13.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1162/3/1	F	90	**12.5**	5.4	2.6	22.3	8.7	-	-	-	-	-	9.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1163/1/1	M	U	2.2	1.8	1.7	14.8	3.4	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1163/2/1	F	U	2.2	1.8	1.7	14.8	3.4	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1164/1/1	M	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7518	256
1164/2/1	F	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8029	418
1164/3/1	M	77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8029	418
1165/1/1	F	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7665	261
1165/2/1	M	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7613	104
1166/1/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5834	183
1166/2/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5862	183
1166/3/1	M	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6062	344
1166/4/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7827	183
1167/1/1	F	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6251	183
1167/2/1	M	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7301	95
1168/1/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1750	90	-	-	-	-
1168/1/2	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1750	90	-	-	-	-
1168/1/3	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1750	90	-	-	-	-
1168/1/4	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1750	90	-	-	-	-

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1168/1/5	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1750	90	-	-	-	-
1168/1/6	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1750	90	-	-	-	-
1168/1/7	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1750	90	-	-	-	-
1168/1/8	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1750	90	-	-	-	-
1168/1/9	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1750	90	-	-	-	-
1168/1/10	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1750	90	-	-	-	-
1168/1/11	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1750	90	-	-	-	-
1168/1/12	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1750	90	-	-	-	-
1168/2/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1700	-	-	-	-	-
1168/2/2	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1700	-	-	-	-	-
1168/2/3	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1700	-	-	-	-	-
1168/2/4	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1700	-	-	-	-	-
1168/2/5	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1700	-	-	-	-	-
1168/2/6	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1700	-	-	-	-	-
1168/2/7	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1700	-	-	-	-	-
1168/2/8	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1700	-	-	-	-	-
1168/2/9	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1700	-	-	-	-	-
1168/2/10	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1700	-	-	-	-	-
1168/2/11	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1700	-	-	-	-	-
1168/3/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1140	-	-	-	-	-
1168/3/2	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1140	-	-	-	-	-
1168/3/3	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1140	-	-	-	-	-
1168/3/4	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1140	-	-	-	-	-
1168/3/5	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1140	-	-	-	-	-

Annex 1. Adults' consumption rates (kg y^{-1} or l y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous	Freshwater plants (affected by gaseous discharges)	Canal bank occupancy over grass	Canal bank occupancy over gravel towpath	Occupancy in close proximity (<10m) to sewage sludge	Occupancy in close proximity (<10m) to sewage cake bio-	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1168/3/6	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1140	-	-	-	-	-
1168/4/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	850	17	-	-	-	-
1168/5/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607	-	-	-	-
1168//6/1	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	-	-	-	-
1168//6/2	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	-	-	-	-
1168//6/3	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	-	-	-	-
1168//6/4	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	-	-	-	-
1168//6/5	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	-	-	-	-
1168//6/6	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	-	-	-	-
1168//6/7	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	-	-	-	-
1168//6/8	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	-	-	-	-
1168//6/9	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	-	-	-	-
1168//6/10	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	-	-	-	-
1168//6/11	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	-	-	-	-
1168//6/12	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	-	-	-	-
1168//6/13	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	-	-	-	-
1168//6/14	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	-	-	-	-
1168//6/15	M	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276	-	-	-	-

Notes

U = Unknown

Emboldened observations are the high-rate individuals

Annex 2. Children's and infants' consumption rates (kg y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Cattle meat	Sheep meat	Eggs	Wild/free foods	Honey	Freshwater fish (affected by gaseous discharges)	Canal bank occupancy over gravel towpath	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1026/3/1	M	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5763	462
1041/2/1	M	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6016	716
1047/4/1	F	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5705	241
1048/4/1	F	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6403	153
1048/5/1	M	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6250	307
1049/3/1	M	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5331	1043
1049/4/1	F	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5852	1043
1049/5/1	M	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5852	1043
1073/3/1	M	14	-	-	-	-	-	-	-	-	-	-	-	-	-	261	-	-
1087/4/1	M	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6669	150
1089/3/1	F	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5633	497
1092/2/1	M	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5921	516
1092/3/1	F	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5921	516
1093/4/1	F	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6165	730
1101/5/1	M	6	**12.0**	1.6	**3.0**	-	**10.3**	-	-	**16.8**	**0.4**	**4.1**	-	-	-	-	-	-
1121/5/1	M	12	0.6	**3.1**	-	**5.0**	**7.5**	**12.5**	-	**5.9**	-	**3.9**	**0.4**	-	-	-	-	-
1121/6/1	M	10	0.6	**3.1**	-	**5.0**	**7.5**	**12.5**	-	**5.9**	-	**3.9**	**0.4**	-	-	-	-	-
1121/7/1	M	9	0.5	**2.3**	-	**3.8**	**5.6**	**9.4**	-	4.5	-	**3.0**	**0.3**	-	-	-	-	-
1121/8/1	M	8	0.5	**2.3**	-	**3.8**	**5.6**	**9.4**	-	4.5	-	**3.0**	**0.3**	-	-	-	-	-
1122/2/1	M	12	-	-	-	-	-	-	-	-	-	-	-	**52**	104	-	-	-
1122/4/1	F	15	-	-	-	-	-	-	-	-	-	-	-	**52**	104	-	-	-
1124/3/1	F	9	-	-	-	-	-	-	-	-	-	-	-	**98**	-	-	-	-

Annex 2. Children's and infants' consumption rates (kg y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Cattle meat	Sheep meat	Eggs	Wild/free foods	Honey	Freshwater fish (affected by gaseous discharges)	Canal bank occupancy over gravel towpath	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1134/3/1	F	11	-	-	-	-	-	-	-	-	**0.7**	-	-	-	-	-	6191	287
1145/4/1	M	11	0.8	**3.6**	-	-	**3.6**	-	-	**10.7**	**1.0**	-	-	-	-	-	5590	548
1145/5/1	M	10	0.8	**3.6**	-	-	**3.6**	-	-	**10.7**	**1.0**	-	-	-	-	-	5617	822
1147/3/1	F	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7404	730
1147/4/1	M	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6101	730
1147/5/1	M	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6101	730
1149/3/1	M	9	-	0.9	-	-	-	-	-	-	**0.4**	-	-	-	-	-	5264	1006
1149/4/1	F	7	-	0.9	-	-	-	-	-	-	**0.4**	-	-	-	-	-	5264	1006
1152/5/1	F	13	**7.6**	**4.8**	**5.9**	-	0.4	-	-	-	-	-	-	-	-	-	-	-
1152/6/1	M	15	**7.6**	**4.8**	**5.9**	-	0.4	-	-	-	-	-	-	-	-	-	-	-
1156/3/1	F	8	-	-	-	-	-	-	**7.9**	**7.1**	-	0.4	-	-	-	-	5550	1432
1163/3/1	F	12	1.7	1.3	1.3	**11.1**	2.6	-	-	-	0.2	-	-	-	-	-	-	-
1165/3/1	M	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6634	261
1165/4/1	F	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6634	261
Infant age group (0 - 5 years old)																		
1035/3/1	M	1	0.9	0.8	**1.2**	1.5	**1.3**	-	-	-	-	-	-	-	-	-	-	-
1035/4/1	F	4	**1.7**	**1.5**	**2.4**	**2.9**	**2.5**	-	-	-	-	-	-	-	-	-	-	-
1041/3/1	F	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6918	716
1041/4/1	F	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6016	716
1047/3/1	F	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5705	241
1048/3/1	F	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6904	1279
1086/3/1	M	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6607	659

Annex 2. Children's and infants' consumption rates (kg y^{-1}) and occupancy rates (h y^{-1}) in the Amersham area

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Cattle meat	Sheep meat	Eggs	Wild/free foods	Honey	Freshwater fish (affected by gaseous discharges)	Canal bank occupancy over gravel towpath	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1086/4/1	M	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6607	659
1090/4/1	F	5	-	0.7	-	-	-	-	-	-	**0.3**	-	-	-	-	-	6358	678
1090/5/1	F	3	-	0.7	-	-	-	-	-	-	**0.3**	-	-	-	-	-	7120	678
1096/3/1	F	5	**2.8**	**3.8**	**1.5**	-	**1.9**	-	-	-	-	-	-	-	-	-	-	-
1096/4/1	M	2	**1.9**	**2.5**	**1.0**	-	1.2	-	-	-	-	-	-	-	-	-	-	-
1121/9/1	F	3	0.3	**1.6**	-	**2.5**	**3.8**	**6.3**	-	3.0	-	**2.0**	-	-	-	-	-	-
1124/2/1	M	5	-	-	-	-	-	-	-	-	-	-	-	**98**	-	-	-	-
1135/3/1	F	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7195	176
1143/3/1	M	5	**1.0**	**2.3**	-	-	**1.7**	-	-	**11.9**	-	-	-	-	-	-	5291	731
1143/4/1	F	3	**1.0**	**2.3**	-	-	**1.7**	-	-	**11.9**	-	-	-	-	-	-	5360	731
1163/4/1	M	2	0.7	0.6	0.6	**4.9**	1.1	-	-	-	**0.1**	-	-	-	-	-	-	-

Notes

Emboldened observations are the high-rate individuals

Annex 3. Qualitative and estimated data for use in dose assessments

Details of activity	Exposure pathways involved	Estimated rate	Potential associated exposure pathways
It was reported that coarse fish (such as pike, perch or carp) were being caught by anglers in the aquatic survey area and were occasionally consumed.	Coarse fish consumption from water potentially affected by liquid discharges	1 kg y^{-1} per person	Signal crayfish consumption and riverbank occupancy
It was reported that small quantities of signal crayfish were being consumed. The crayfish were said to be caught in the aquatic survey area in traps set by anglers and houseboat occupants.	Signal crayfish consumption from water potentially affected by liquid discharges	1 kg y^{-1} per person	Coarse fish consumption and riverbank occupancy

Annex 4. Ratios for determining consumption and occupancy rates for children and infants

Group	Ratio[a]	
	Child[e]/adult	Infant[e]/adult
Fish[b]	0.200	0.050
Crustaceans[b]	0.250	0.050
Molluscs[b]	0.250	0.050
Green vegetables	0.444	0.222
Other vegetables	0.500	0.200
Root vegetables	0.500	0.375
Potatoes	0.708	0.292
Domestic fruit	0.667	0.467
Milk	1.000	1.333
Cattle meat	0.667	0.222
Pig meat	0.625	0.138
Sheep meat	0.400	0.120
Poultry	0.500	0.183
Eggs	0.800	0.600
Wild/free foods[c]	0.490	0.110
Game[d]	0.500	0.140
Honey	0.789	0.789
Wild fungi	0.450	0.150
Freshwater fish[b]	0.250	0.050
External exposure over intertidal substrates[b]	0.500	0.030

Notes

[a]Excepting notes b and c, consumption ratios were derived from Byrom et al., (1995) which presented data for infants aged 6 to 12 months and children aged 10 to 11 years.

[b]Ratios were derived from Smith and Jones, (2003) which presented data for infants and children of unspecified ages.

[c]Ratios were derived from FSA data for wild fruit and nuts for infants and 10-year-old children.

[d]Game includes rabbits/hares and venison.

[e]Note that the age ranges within the age groups in this table do not correspond exactly with the groups used throughout the rest of this report.

Annex 5. Consumption rates (kg y^{-1}) and occupancy rates (h y^{-1}) for women of childbearing age[a] in the Amersham area for use in foetal dose assessments

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous discharges)	Canal bank occupancy over gravel towpath	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1016/3/1	F	U	-	-	-	-	-	-	-	17.0	-	-	-	-	-	-	-	-	-	-	-	-	-
1016/3/2	F	U	-	-	-	-	-	-	-	17.0	-	-	-	-	-	-	-	-	-	-	-	-	-
1018/2/1	F	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7678	65
1025/3/1	F	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6834	98
1027/3/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8123	100
1029/1/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-
1029/1/2	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-
1029/1/3	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-
1030/2/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-
1035/2/1	F	U	3.4	3.0	4.7	5.8	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1035/2/2	F	U	3.4	3.0	4.7	5.8	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1035/2/3	F	U	3.4	3.0	4.7	5.8	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1035/2/4	F	U	3.4	3.0	4.7	5.8	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1036/2/1	F	U	0.6	0.6	1.1	-	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1038/2/1	F	U	-	-	-	-	-	-	-	-	-	5.9	-	-	-	-	-	-	-	-	-	-	-
1041/1/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6188	1790
1045/1/1	F	U	2.1	4.5	8.1	28.2	13.6	-	-	-	-	30.8	0.1	-	-	-	-	-	-	-	-	-	-
1045/2/1	F	U	2.1	4.5	8.1	28.2	13.6	-	-	-	-	30.8	0.1	-	-	-	-	-	-	-	-	-	-
1045/3/1	F	U	2.1	4.5	8.1	28.2	13.6	-	-	-	-	30.8	0.1	-	-	-	-	-	-	-	-	-	-
1047/2/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6162	481
1048/4/1	F	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6403	153
1049/1/1	F	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5892	1043
1051/2/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/2/2	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/2/3	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/2/4	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/2/5	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230
1051/2/6	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1495	230

Annex 5. Consumption rates (kg y^{-1}) and occupancy rates (h y^{-1}) for women of childbearing age[a] in the Amersham area for use in foetal dose assessments

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous discharges)	Canal bank occupancy over gravel towpath	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1052/2/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	870	118
1052/2/2	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	870	118
1052/3/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1762	118
1064/2/1	F	U	-	-	-	-	-	-	9.5	-	1.1	0.2	-	-	-	-	-	-	-	-	-	-	-
1064/3/1	F	U	-	-	-	-	-	-	9.5	-	1.1	0.2	-	-	-	-	-	-	-	-	-	-	-
1064/4/1	F	U	-	-	-	-	-	-	9.5	-	1.1	0.2	-	-	-	-	-	-	-	-	-	-	-
1067/4/1	F	21	2.3	-	-	-	1.1	-	-	-	-	6.7	-	-	-	-	-	-	-	-	-	-	-
1069/2/1	F	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	-	315	-	-
1074/2/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	245	-	-	-	-
1074/3/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	92	-	-	-	-
1086/1/1	F	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6541	659
1089/2/1	F	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6410	497
1089/3/1	F	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5633	497
1090/2/1	F	38	-	1.3	-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	7103	678
1090/3/1	F	17	-	1.3	-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	6045	678
1092/1/1	F	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6095	516
1092/3/1	F	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5921	516
1094/2/1	F	U	-	2.7	3.9	13.7	7.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	489
1095/2/1	F	U	9.7	1.8	11.3	13.1	9.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	168
1096/2/1	F	32	5.7	7.6	3.0	-	3.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	195
1100/4/1	F	26	2.2	10.6	19.2	45.9	8.8	-	25.3	-	-	17.8	-	-	-	-	-	-	-	-	-	-	-
1101/3/1	F	26	12.0	1.6	3.0	-	10.3	-	-	-	-	16.8	0.4	-	4.1	-	-	-	-	-	-	-	-
1102/1/1	F	18	26.2	9.1	57.8	72.8	24.0	-	-	7.5	0.8	23.7	1.3	0.8	-	0.8	-	-	-	-	-	-	-
1120/4/1	F	U	-	-	-	-	-	-	-	-	1.3	-	-	-	-	0.5	-	-	-	-	-	-	-
1121/3/1	F	U	0.6	3.1	-	5.0	7.5	12.5	-	-	-	5.9	-	-	3.9	-	0.4	-	-	-	-	-	-
1122/4/1	F	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	104	-	-	-
1124/1/1	F	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	176	-	-	-	-
1125/2/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	640	-	-

Annex 5. Consumption rates (kg y^{-1}) and occupancy rates (h y^{-1}) for women of childbearing age[a] in the Amersham area for use in foetal dose assessments

Person ID number	Gender	Age	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Freshwater fish (affected by gaseous discharges)	Freshwater crustaceans (affected by gaseous discharges)	Canal bank occupancy over gravel towpath	Occupancy in water	Occupancy on water	Indoor occupancy within 1 km of the licensed site boundary	Outdoor occupancy within 1 km of the licensed site boundary
1125/4/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	320	-	-
1130/1/1	F	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	183	-	-	-	-
1132/2/1	F	U	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	6968	138
1134/2/1	F	16	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	4794	144
1135/2/1	F	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6368	1053
1137/2/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.8	0.3	-	-	-	-	-
1143/2/1	F	35	2.0	4.7	-	-	3.4	-	-	-	-	23.8	-	-	-	-	-	-	-	-	-	4253	731
1143/5/1	F	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	717	117
1145/3/1	F	27	0.8	3.6	-	-	3.6	-	-	-	-	10.7	1.0	-	-	-	-	-	-	-	-	5296	674
1147/2/1	F	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5970	183
1149/2/1	F	U	-	1.1	-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	6768	1006
1152/2/1	F	U	7.6	4.8	5.9	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1152/4/1	F	U	7.6	4.8	5.9	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1155/3/1	F	U	15.6	12.6	9.2	4.6	23.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1155/4/1	F	U	15.6	12.6	9.2	4.6	23.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1156/2/1	F	37	-	-	-	-	-	-	-	10.5	-	9.5	0.2	-	0.5	-	-	-	-	-	-	6059	2148
1163/2/1	F	U	2.2	1.8	1.7	14.8	3.4	-	-	-	-	-	0.3	-	-	-	-	-	-	-	-	-	-
1165/1/1	F	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7665	261
1166/1/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5834	183
1166/2/1	F	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5862	183

Notes

U = Unknown

[a] Based on National Statistics guidelines, women were deemed to be of childbearing age if they were between 15 and 44 years old. Women of unknown age were included as they were potentially women of childbearing age.

Annex 6. Summary of profiles for adults in the Amersham area for use in the assessment of total dose

Profile Name	Number of individuals	Pathway Name: Crustacea - Affected by liquid discharges	Crustacea - Affected by gaseous discharges	Direct	Eggs	Fish - Affected by gaseous discharges	Fish - Affected by liquid discharges	Freshwater Plants	Fruit - Domestic	Fruit and nuts - Wild	Gamma external - Canal	Honey	Meat - Cow	Meat - Game	Meat - Pig	Meat - Poultry	Meat - Sheep	Milk	Mushrooms	Occupancy in proximity to sewage sludge	Occupancy in proximity to sewage cake biosolids	Occupancy IN water	Occupancy ON water	Plume (IN; 0-0.25km)	Plume (MID; 0.25-0.5km)	Plume (OUT; 0.5-1km)	Vegetables - Green	Vegetables - Other Domestic	Vegetables - Potatoes	Vegetables - Root
Notes:		1	2	3		4	1				5			6										7	7	7				
Units:		kg	kg	-	kg	kg	kg	kg	kg	kg	h	kg	kg	kg	kg	kg	kg	l	kg	h	h	h	h	h	h	h	kg	kg	kg	kg
Consumers of Crustaceans Affected by Liquid Discharges	**2**	1.0	-	-	-	-	1.0	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Consumers of Crustaceans Affected by Gaseous Discharges	**3**	-	0.38	0.33	5.9	6.8	-	-	6.0	1.7	8	-	-	-	-	-	-	-	0.91	-	-	-	-	2680	-	-	-	2.4	6.0	-
Occupants for Direct Radiation	**243**	-	<0.01	1.00	0.87	0.01	-	<0.01	0.59	0.15	<1	<0.01	-	-	-	0.03	0.13	-	0.02	-	-	-	-	2100	580	880	0.36	0.54	0.46	0.29
Egg Consumers	**28**	-	0.02	0.21	21.7	0.15	-	-	9.9	0.74	<1	0.62	0.89	0.15	3.6	0.68	2.0	-	0.23	-	-	-	-	1430	-	-	5.9	4.7	22.3	11.3
Consumers of Fish Affected by Gaseous Discharges	**2**	-	0.34	-	-	8.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Consumers of Fish Affected by Liquid Discharges	**2**	1.0	-	-	-	-	1.0	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Freshwater Plant Consumers	**1**	-	-	-	-	-	-	17.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic Fruit Consumers	**27**	-	0.02	0.11	10.8	0.10	-	-	19.0	0.70	<1	-	-	0.09	-	0.09	0.84	-	0.18	-	-	-	-	300	8	-	12.5	8.8	23.7	14.6
Wild Fruit and Nut Consumers	**10**	-	0.05	0.80	8.2	0.28	-	0.09	8.1	3.0	2	0.82	-	-	-	0.68	-	-	0.41	-	-	-	-	2780	21	1530	5.2	3.4	3.0	1.3
Occupants over Canalbank	**3**	-	-	-	-	-	-	-	-	-	530	-	-	-	-	-	-	-	-	-	-	-	2430	-	-	-	-	-	-	-
Honey Consumers	**8**	-	-	-	9.9	0.11	-	-	7.0	1.0	-	4.2	3.1	-	3.2	-	0.71	-	-	-	-	-	-	-	-	-	6.2	1.6	1.3	1.5
Cattle Meat Consumers	**4**	-	-	-	11.9	0.57	-	-	7.5	-	-	2.2	12.5	0.45	-	1.8	-	-	-	-	-	-	-	-	-	-	0.63	3.1	5.0	-
Game Meat Consumers	**5**	-	-	-	21.3	0.28	-	-	17.4	0.80	-	0.18	5.0	0.85	-	1.9	4.5	-	0.45	-	-	-	-	-	-	-	16.0	6.7	45.7	34.7
Pig Meat Consumers	**14**	-	-	-	5.2	-	-	-	2.5	-	-	0.26	-	-	16.3	0.76	0.81	-	-	-	-	-	-	-	-	-	0.62	3.0	13.1	5.5
Poultry Meat Consumers	**4**	-	-	0.25	15.6	0.35	-	-	4.5	1.1	-	0.23	6.3	0.45	-	4.2	-	-	0.59	-	-	-	-	1920	-	-	0.31	1.6	2.5	-
Sheep Meat Consumers	**12**	-	-	0.25	11.3	-	-	-	6.0	0.37	-	0.12	-	0.21	-	0.43	13.0	-	0.19	-	-	-	-	-	-	1530	6.5	2.7	22.8	14.4
Milk Consumers	**3**	-	-	-	6.8	-	-	-	2.0	0.91	-	0.98	-	-	-	-	-	132.0	-	-	-	-	-	-	-	-	16.3	13.1	5.5	7.0
Mushroom Consumers	**3**	-	0.15	0.67	14.9	0.94	-	-	7.0	3.2	8	-	-	-	-	3.1	-	-	1.7	-	-	-	-	5240	-	-	-	2.4	6.0	-
Occupancy in Proximity to Sewage Sludge	**30**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1580	200	-	-	-	-	-	-	-	-	-
Occupancy in Proximity to Sewage Cake Biosolids	**16**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1500	300	-	-	-	-	-	-	-	-	-
Occupants In Water	**2**	-	-	-	-	-	-	-	-	-	52	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-
Occupants On Water	**2**	-	-	-	-	-	-	-	-	-	520	-	-	-	-	-	-	-	-	-	-	-	6660	-	-	-	-	-	-	-
Local Inhabitants (0 - 0.25km)	**49**	-	<0.01	1.00	3.8	0.06	-	-	1.2	0.43	<1	-	-	-	-	0.14	-	-	0.08	-	-	-	-	6750	-	-	0.57	1.5	0.62	0.02
Local Inhabitants (0.25 - 0.5km)	**16**	-	-	1.00	-	-	-	-	0.88	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7400	-	0.87	1.4	1.7	1.7
Local Inhabitants (0.5 - 1km)	**26**	-	-	1.00	0.73	-	-	0.03	0.17	0.22	-	0.04	-	-	-	-	0.81	-	-	-	-	-	-	-	-	7270	-	0.16	-	-
Green Vegetable Consumers	**30**	-	-	0.07	7.1	-	-	-	15.5	0.49	-	0.64	-	0.08	-	0.08	0.75	7.3	0.08	-	-	-	-	-	11	-	16.4	10.9	27.0	14.3
Other Domestic Vegetable Consumers	**20**	-	-	0.10	4.6	-	-	-	14.8	0.20	-	0.15	-	-	5.1	-	-	10.9	-	-	-	-	-	-	720	-	13.7	14.9	33.7	14.0
Potato Consumers	**9**	-	-	-	15.8	-	-	-	13.6	0.44	-	-	-	0.27	11.2	0.27	2.5	-	0.25	-	-	-	-	-	-	-	14.5	14.5	72.4	30.3
Root Vegetable Consumers	**6**	-	-	-	11.8	-	-	-	28.7	0.73	-	-	-	0.41	-	0.41	3.8	-	0.38	-	-	-	-	-	-	-	21.2	12.3	53.2	41.6

Notes

1. Estimated consumption rates of crustaceans and fish potentially affected by liquid discharges, which represents a hypothetical angler consuming these species from the aquatic survey area, and spending 300 h y⁻¹ on the riverbank. See Annex 3.
2. Crustaceans consumed from waters within the terrestrial surve
3. Expressed as the proportion of the profile members who are e
4. Fish consumed from waters within the terrestrial survey area th
5. Gamma external - Canal includes occupancy over gravel towpath and grass
6. Meat - Game includes consumption of rabbits/hares
7. Plume times are the sums of individuals' indoor and outdoor occupancy rates in each of the direct radiation zones

The means of the high-rate groups are determined by the 'cut-off' method and are highlighted on the diagonal

Annex 7. Summary of profiles for the child age group (6 - 15 years old) in the Amersham area for use in the assessment of total dose

Profile Name	Number of individuals	Direct	Eggs	Fish - Fresh	Fruit - Domestic	Fruit and nuts - Wild	Gamma external - Canal	Honey	Meat - Cow	Meat - Sheep	Occupancy IN water	Occupancy ON water	Plume (IN; 0-0.25km)	Plume (MID; 0.25-0.5km)	Plume (OUT; 0.5-1km)	Vegetables - Green	Vegetables - Other Domestic	Vegetables - Potatoes	Vegetables - Root
Notes:		1		2			3						4	4	4				
Units:		-	kg	kg	kg	kg	h	kg	kg	kg	h	h	h	h	h	kg	kg	kg	kg
Occupants for Direct Radiation	**24**	1.00	1.2	-	0.30	0.15	-	0.02	-	0.33	-	-	4760	520	1350	0.07	0.37	-	-
Egg Consumers	**6**	0.50	9.5	0.14	5.4	0.40	-	2.1	4.2	1.3	-	-	2100	-	1160	2.5	2.5	1.7	0.50
Freshwater Fish Consumers	**4**	-	5.2	0.38	6.6	-	-	3.4	10.9	-	-	-	-	-	-	0.55	2.7	4.4	-
Domestic Fruit Consumers	**7**	0.29	8.4	0.21	6.2	0.34	-	2.6	6.3	-	-	-	1800	-	-	2.3	2.8	2.5	0.43
Wild Fruit and Nut Consumers	**6**	0.83	6.4	-	2.9	0.65	-	0.68	-	-	-	-	4190	1080	-	2.3	1.8	-	0.50
Occupants over Canal	**3**	-	-	-	-	-	67	-	-	-	69	-	-	-	-	-	-	-	-
Honey Consumers	**5**	-	7.5	0.30	7.3	0.08	-	3.6	8.8	-	-	-	-	-	-	2.8	2.5	3.5	0.60
Cattle Meat Consumers	**4**	-	5.2	0.38	6.6	-	-	3.4	10.9	-	-	-	-	-	-	0.55	2.7	4.4	-
Sheep Meat Consumers	**1**	1.00	7.1	-	-	-	-	0.36	-	7.9	-	-	-	-	6980	-	-	-	-
Occupants In Water	**2**	-	-	-	-	-	52	-	-	-	100	-	-	-	-	-	-	-	-
Occupants On Water	**1**	-	-	-	-	-	-	-	-	-	-	260	-	-	-	-	-	-	-
Local Inhabitants (0 - 0.25km)	**17**	1.00	1.3	-	0.42	0.17	-	-	-	-	-	-	6720	-	-	0.09	0.52	-	-
Local Inhabitants (0.25 - 0.5km)	**2**	1.00	-	-	-	0.33	-	-	-	-	-	-	-	6210	-	-	-	-	-
Local Inhabitants (0.5 - 1km)	**5**	1.00	1.4	-	-	-	-	0.07	-	1.6	-	-	-	-	6490	-	-	-	-
Green Vegetable Consumers	**3**	-	5.6	-	3.7	0.13	-	1.4	-	-	-	-	-	-	-	9.1	3.7	-	4.9
Other Domestic Vegetable Consumers	**8**	0.25	5.3	0.19	4.3	0.25	-	1.7	5.5	-	-	-	1570	-	-	2.4	3.5	2.2	1.5
Potato Consumers	**5**	-	4.2	0.30	5.8	0.05	-	2.8	8.8	-	-	-	-	-	-	0.77	2.5	5.7	0.26
Root Vegetable Consumers	**3**	-	5.6	-	3.7	0.13	-	1.4	-	-	-	-	-	-	-	9.1	3.7	-	4.9

Notes

1. Expressed as the proportion of the profile members who are exposed to direct radiation
2. Fish consumed from waters within the terrestrial survey area that are potentially affected by gaseous discharges
3. Gamma external - Canal, includes occupancy over the gravel towpath
4. Plume times are the sums of individuals' indoor and outdoor rates in each of the direct radiation zones

The means of the high-rate groups are determined by the 'cut-off' method and are highlighted on the diagonal

Annex 8. Summary of profiles for the infant age group (0 - 5 years old) in the Amersham area for use in the assessment of total dose

			Pathway Name													
			Direct	Eggs	Fruit - Domestic	Fruit and nuts - Wild	Gamma external - Canal	Honey	Meat - Cow	Plume (IN; 0-0.25km)	Plume (MID; 0.25-0.5km)	Plume (OUT; 0.5-1km)	Vegetables - Green	Vegetables - Other Domestic	Vegetables - Potatoes	Vegetables - Root
	Number of individuals	Notes:	1				2			3	3	3				
Profile Name		Units:	-	kg	kg	kg	h	kg	kg	h	h	h	kg	kg	kg	kg
Occupants for Direct Radiation	**11**		1.00	2.2	0.31	0.05	-	-	-	3730	1210	2090	0.18	0.55	-	-
Egg Consumers	**2**		1.00	11.9	1.7	-	-	-	-	6060	-	-	1.0	2.3	-	-
Domestic Fruit Consumers	**6**		0.33	4.5	2.1	-	-	0.33	1.0	2020	-	-	1.3	2.0	1.1	0.84
Wild Fruit and Nut Consumers	**3**		0.67	-	0.38	0.22	-	-	-	-	-	4940	0.24	0.65	1.6	0.19
Occupants over Canalbank	**1**		-	-	-	-	98	-	-	-	-	-	-	-	-	-
Honey Consumers	**1**		-	3.0	3.8	-	-	2.0	6.3	-	-	-	0.31	1.6	2.5	-
Cattle Meat Consumers	**1**		-	3.0	3.8	-	-	2.0	6.2	-	-	-	0.31	1.6	2.5	-
Local Inhabitants (0 - 0.25km)	**6**		1.00	4.0	0.56	-	-	-	-	6840	-	-	0.33	0.78	-	-
Local Inhabitants (0.25 - 0.5km)	**2**		1.00	-	-	-	-	-	-	-	6660	-	-	-	-	-
Local Inhabitants (0.5 - 1km)	**3**		1.00	-	-	0.19	-	-	-	-	-	7670	-	0.45	-	-
Green Vegetable Consumers	**5**		0.40	4.8	1.8	-	-	-	-	2420	-	-	1.7	2.5	0.58	0.96
Other Domestic Vegetable Consumers	**6**		0.33	4.5	2.1	-	-	0.33	1.0	2020	-	-	1.5	2.3	0.90	0.80
Potato Consumers	**3**		-	0.99	2.5	0.04	-	0.66	2.1	-	-	-	0.92	1.2	3.4	0.97
Root Vegetable Consumers	**4**		-	-	1.7	-	-	-	-	-	-	-	1.8	2.1	1.1	1.5

Notes

1. Expressed as the proportion of the profile members who are exposed to direct radiation
2. Gamma external - Canal, includes occupancy over the gravel towpath
3. Plume times are the sums of individuals' indoor and outdoor rates in each of the direct radiation zones

The means of the high-rate groups are determined by the 'cut-off' method and are highlighted on the diagonal

Annex 9. Summary of profiles for women of childbearing age in the Amersham area, for use in the assessment of total dose to the foetus

Profile Name	Number of individuals	Crustacea - Freshwater	Direct	Eggs	Fish - Fresh	Fruit - Domestic	Fruit and nuts - Wild	Gamma external - Canal	Honey	Meat - Cow	Meat - Game	Meat - Pig	Meat - Poultry	Meat - Sheep	Mushrooms	Occupancy IN water	Occupancy ON water	Plume (IN; 0-0.25km)	Plume (MID; 0.25-0.5km)	Plume (OUT; 0.5-1km)	Vegetables - Green	Vegetables - Other Domestic	Vegetables - Potatoes	Vegetables - Root
Notes:		1	2		3			4			5							6	6	6				
Units:		kg	-	kg	kg	kg	kg	h	kg	kg	kg	kg	kg	kg	kg	h	h	h	h	h	kg	kg	kg	kg
Freshwater Crustacean Consumers	**1**	0.34	-	-	8.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Occupants for Direct Radiation	**38**	-	1.00	1.2	-	0.72	0.09	-	0.01	-	-	-	-	0.28	-	-	-	2690	520	1720	0.48	0.64	0.70	0.48
Egg Consumers	**8**	-	0.25	23.1	-	11.4	0.39	-	0.51	-	0.10	3.2	0.10	0.94	0.09	-	-	1370	-	-	6.2	5.4	25.4	13.0
Freshwater Fish Consumers	**1**	0.34	-	-	8.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic Fruit Consumers	**9**	-	0.11	16.7	-	15.7	0.23	-	0.45	-	0.09	2.8	0.09	0.84	0.08	-	-	-	19	-	9.7	6.9	25.0	14.9
Wild Fruit and Nut Consumers	**6**	-	0.83	5.7	-	4.6	0.78	-	-	-	0.14	-	0.14	1.3	0.13	-	-	2290	820	2420	4.5	2.7	12.1	9.6
Occupants over Canalbank	**7**	-	-	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Honey Consumers	**2**	-	-	11.4	0.21	8.9	0.20	-	4.0	6.3	-	-	-	-	-	-	-	-	-	-	6.3	2.4	2.5	1.5
Cattle Meat Consumers	**1**	-	-	5.9	0.43	7.5	-	-	3.9	12.5	-	-	-	-	-	-	-	-	-	-	0.63	3.1	5.0	-
Game Meat Consumers	**1**	-	-	23.7	-	24.0	1.3	-	-	-	0.82	-	0.82	7.5	0.76	-	-	-	-	-	26.2	9.1	72.8	57.8
Pig Meat Consumers	**4**	-	-	4.6	-	2.2	-	-	-	-	-	13.4	0.84	-	-	-	-	-	-	-	0.55	2.6	11.5	4.8
Poultry Meat Consumers	**5**	-	-	4.8	-	4.8	0.27	-	-	-	0.16	5.7	1.1	1.5	0.25	-	-	-	-	-	5.2	1.8	14.6	11.6
Sheep Meat Consumers	**4**	-	0.25	8.3	-	6.0	0.39	-	0.12	-	0.21	-	0.21	13.0	0.19	-	-	-	-	2050	6.5	2.3	18.2	14.4
Mushroom Consumers	**2**	-	-	11.8	-	12.0	0.67	-	-	-	0.41	-	1.1	3.8	0.63	-	-	-	-	-	13.1	4.5	36.4	28.9
Occupants In Water	**1**	-	-	-	-	-	-	52	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-
Occupants On Water	**3**	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	430	-	-	-	-	-	-	-
Local Inhabitants (0 - 0.25km)	**13**	-	1.00	2.7	-	0.54	0.12	-	-	-	-	-	-	-	-	-	-	6700	-	-	0.22	0.72	-	-
Local Inhabitants (0.25 - 0.5km)	**3**	-	1.00	-	-	-	0.22	-	-	-	-	-	-	-	-	-	-	-	6330	-	-	-	-	-
Local Inhabitants (0.5 - 1km)	**9**	-	1.00	1.1	-	-	0.15	-	0.05	-	-	-	-	1.2	-	-	-	-	-	7240	-	0.30	-	-
Green Vegetable Consumers	**5**	-	0.20	8.1	-	18.3	0.35	-	0.82	-	0.16	-	0.16	1.5	0.15	-	-	-	34	-	15.8	7.5	19.0	18.1
Other Domestic Vegetable Consumers	**11**	-	0.18	14.3	-	11.7	0.16	-	-	-	0.07	2.3	0.07	0.68	0.07	-	-	450	18	-	8.1	7.3	19.3	12.2
Potato Consumers	**5**	-	-	26.8	-	14.8	0.34	-	-	-	0.16	5.1	0.16	1.5	0.15	-	-	-	-	-	6.9	6.6	40.6	20.3
Root Vegetable Consumers	**1**	-	-	23.7	-	24.0	1.3	-	-	-	0.82	-	0.82	7.5	0.76	-	-	-	-	-	26.2	9.1	72.8	57.8

Notes

1. Crustaceans consumed from waters within the terrestrial survey area that are potentially affected by gaseous discharges
2. Expressed as the proportion of the profile members who are exposed to direct radiation
3. Crustaceans consumed from waters within the aquatic survey area that are affected by liquid discharges
4. Fish consumed from waters within the terrestrial survey area that are potentially affected by gaseous discharges
5. Gamma external - Canal, includes occupancy over the gravel towpath
6. Plume times are the sums of individuals' indoor and outdoor rates in each of the direct radiation zones

The means of the high-rate groups are determined by the 'cut-off' method and are highlighted on the diagonal

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Head office

Centre for Environment, Fisheries & Aquaculture Science
Pakefield Road
Lowestoft
Suffolk
NR33 0HT
Tel: +44 (0) 1502 56 2244
Fax: +44 (0) 1502 51 3865

Weymouth office

Barrack Road
The Nothe
Weymouth
DT4 8UB
Tel: +44 (0) 1305 206600
Fax: +44 (0) 1305 206601

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