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Radiological Habits Survey: Hinkley Point, 2017

2018

Environment Report RL 09/18

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Radiological Habits Survey: Hinkley Point, 2017

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Radiological Habits Survey: Hinkley Point, 2017

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KEY POINTS

- The consumption of fish increased significantly in the 2017 Hinkley Point habits survey compared with the last habits survey, which was undertaken in 2010. This was due to newly identified keen boat anglers who were consuming large quantities of fish.

- The intertidal occupancy rate for sand increased significantly in 2017, compared with the last habits survey in 2010, due to a larger number of people working on the shore at Brean for longer periods of time.

- In recent years, dredging activities have ceased at a harbour in the survey area, which has led to a build-up of sediment and has resulted in some of the boats resting on the mud at low tide. Therefore, the occupancy rate for people spending time on a boat while it's resting on mud increased considerably in 2017 compared with 2010.

- There were significant increases in the consumption of poultry and eggs in 2017. The increase in the consumption of poultry was due to the identification of a farming family who were consuming large qualities of chicken. The increase in the consumption of eggs was due to a family who kept numerous chickens and ducks, and consumed a large number of eggs every day.

- The direct radiation survey area was sparsely populated and was extended to 1.1 km. There were no residential properties in the 0 – 0.25 km and >0.25 – 0.5 km zones. A nature reserve was located outside of the secure nuclear site fence but within the nuclear licensed site boundary.

- The construction of the Hinkley Point C site was underway in 2017. The construction area covered most of the western half of the direct radiation survey area, which was predominantly farmland at the time of the last survey. Due to the construction of a jetty offshore of Hinkley Point C, the coastal path was diverted inland around the Hinkley Point A, B and C sites and access to the shore in front of Hinkley Point C was restricted.

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SUMMARY

This report presents the results of a survey conducted in 2017 to determine the habits and consumption patterns of people living, working and pursuing recreational activities in the vicinity of the Hinkley Point A and B nuclear power stations. These are two separate nuclear power stations adjacent to each other at Hinkley Point and for the purposes of this survey they are considered together as a single site. Both stations discharge gaseous radioactive waste via stacks to the atmosphere, liquid radioactive waste into the Bristol Channel and contain 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. 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 intertidal substrates
- The handling of fishing gear and sediment
- Activities and occupancy in and on water
- The use of seaweed as a fertiliser or animal feed
- 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
- Any impacts on activities resulting from the construction of Hinkley Point C

Information was collected from members of the public by means of interviews and the data obtained for 335 individuals are presented and discussed. High rates of consumption, intertidal occupancy and handling are identified using established methods comprising (a) a ‘cut off’ to define the high-rate group and (b) 97.5th percentiles. These rates 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 (see Figure 1, page 22) was defined as the intertidal areas along the Somerset coast between Brean Down and Blue Anchor, and the waters of the Bristol Channel up to 9 km offshore. The tidal estuary of the River Parrett as far upstream as Bridgwater and the tidal estuary of the River Brue as far upstream as the New Clyce Bridge were included in the survey area.

Foods from the aquatic survey area were consumed from the following food groups: fish; crustaceans; molluscs; wildfowl; marine plants/algae. The mean consumption rates for the adult high-rate groups for the separate aquatic consumption pathways for foods potentially affected by liquid discharges were:

- 45 kg y^{-1} for fish
- 12 kg y^{-1} for crustaceans
- 0.7 kg y^{-1} for molluscs
- 3.8 kg y^{-1} for wildfowl
- 0.8 kg y^{-1} for marine plants/algae

The mean consumption rates for the adult high-rate groups for fish and crustaceans were above the national adult mean consumption rates that are used for comparison in habits surveys.

The predominant foods consumed by the people in the adult high-rate groups were:

- For fish: cod and bass
- For crustaceans: brown shrimp
- For molluscs: whelk
- For wildfowl: mallard, wigeon, pintail and teal
- For marine plants/algae: samphire and *Porphyra umbilicalis*

The activities undertaken by adults in the high-rate groups for intertidal occupancy included attending nets, search and rescue duties, dog walking, angling, bait digging, collecting samphire, collecting seaweed, working on the shore, beachcombing, birdwatching, rock pooling and living on a boat. Gamma dose rate measurements were taken at most of the locations in the aquatic survey area where activities were occurring.

Seaweed was used as a fertiliser on allotment plots or gardens where fruit and vegetables were grown. The use of seaweed as an animal feed was not identified.

The only activity undertaken by adults in the high-rate group for handling fishing gear was handling nets and the only activity undertaken by adults in the high-rate group for handling sediment was bait digging. The activities undertaken by people in and on the water included swimming, kayaking, sailing, canoeing, power boating, search and rescue duties, angling, boat maintenance, dredging, and living on a boat.

The terrestrial survey area

The terrestrial survey area (see Figure 2, page 23) covered the land within 5 km of the centre of the Hinkley Point site. Fifteen working farms were identified in the terrestrial survey area. They produced milk (from dairy cattle), beef cattle, pigs, lambs and chickens. Grass (for silage), beans, barley, wheat, corn and maize were grown for use as animal feed on the farms on which they were produced or were sold for animal feed. No arable crops were grown for human consumption. Farmers and their families were consuming milk, beef, pork, lamb and chicken produced on their own farms.

One allotment site, with 10 plots in total, and many private gardens were identified where a variety of fruit and vegetables were grown. One person kept ducks and several individuals kept chickens for eggs, which were consumed by their own families or sold from the door. Three 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 pheasant, pigeon, partridge and rabbits was identified. Wild foods including blackberries, damsons, elderberries, hazelnuts and 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; goat meat. 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 10 food groups: green vegetables; other vegetables; root vegetables; potato; domestic fruit; milk; cattle meat; sheep meat; poultry; eggs.

The consumption of groundwater by humans and livestock was identified at farms in the survey area.

Representatives from the Hinkley Point A and B sites reported that measures taken to limit the possibility that contamination is transferred off-site by wildlife include: proactively maintaining Hinkley Point A site buildings to reduce the likelihood of wildlife entering; discouraging the nesting of seagulls on the site by removing eggs or removing nests; and culling rabbits. Wildlife found in controlled areas at Hinkley Point A were monitored. Wildlife were not monitored at Hinkley Point B since the buildings are more enclosed and it is unlikely that wildlife could enter controlled areas.

The direct radiation survey area

The direct radiation survey area (see Figure 2, page 23) covered the land and waters of the Bristol Chanel within 1.1 km of the combined Hinkley Point A and B nuclear licensed site boundary. The direct radiation survey area was sparsely populated; therefore, the area was extended to include residences bordering the 1 km area that is usually used in habits surveys. The occupancy data collected from the

direct radiation survey area are also applicable to inhalation and external exposure pathways arising from gaseous releases from the site.

The occupancy rates were analysed in zones according to the distance from the Hinkley Point A and B nuclear licensed site boundary. The zones were 0 – 0.25 km, >0.25 – 0.5 km and >0.5 – 1.1 km. Additionally, the Hinkley Point nature reserve was located outside of the secure fence but within the nuclear licensed site boundary. There were no properties in the >0 – 0.25 km and >0.25 – 0.5 km zones so only outdoor and total occupancy rates were obtained in these areas. These occupancy rates were for people who were farming, angling, wildfowling and walking. The highest indoor, outdoor and total occupancy rates in the >0.5 – 1.1 km zone were for residents.

Gamma dose rate measurements were taken indoors and outdoors at most of the properties where interviews were conducted in the direct radiation survey area. Background readings were taken over grass at distances beyond 5 km from the Hinkley Point site centre. The measurements taken indoors and outdoors at the properties were lower than the maximum background measurement. Since gamma dose rate measurements are influenced by the nature of building materials, the substrate over which they are taken, and many other factors, the measurements taken inside properties are expected to be higher than those taken outdoors.

Impacts on activities resulting from the construction of Hinkley Point C

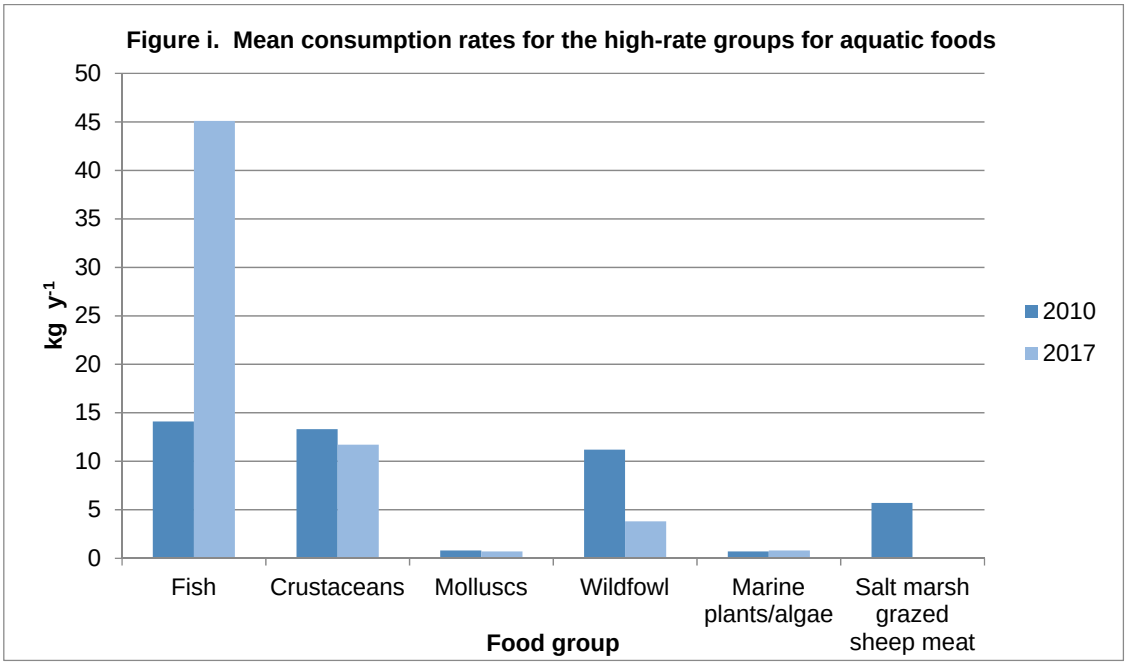
The Hinkley Point C construction site is located adjacent to the western boundary of the Hinkley Point A and B sites. The nuclear licensed site boundary at the western end of the Hinkley Point B area has changed since the 2010 habits survey as some of the land was transferred to the Hinkley Point C site. The construction area covers most of the western half of the direct radiation survey area used in this habits survey. The area was previously farmland and there were three residential properties, one of which was occupied by Hinkley Point C site contractors in 2017. At the time of the habits survey, a temporary accommodation campus was being built in the south-eastern part of the Hinkley Point C construction area, which will house approximately 500 workers.

The coastal path was closed in front of the Hinkley Point C site and was diverted inland around the Hinkley Point A, B and C sites. At the time of the 2017 habits survey, there was limited public access to the shore in front of the Hinkley Point C site due to the construction of a jetty for Hinkley Point C. Activities such as angling, bait digging and wildfowling were undertaken on the shore in front of the Hinkley Point A and B sites. As part of the Hinkley Point C construction, the wharf at Combwich is due to be refurbished and some of the privately-owned boats that were moored in the area have been moved to dry dock or relocated to Watchet Harbour. In 2018, work on the Hinkley Point C cooling water system will involve dredging mud and sediment, and tunnelling to a distance of >3 km offshore from the Hinkley Point C site. The dredged material is planned to be disposed of at Cardiff Grounds.

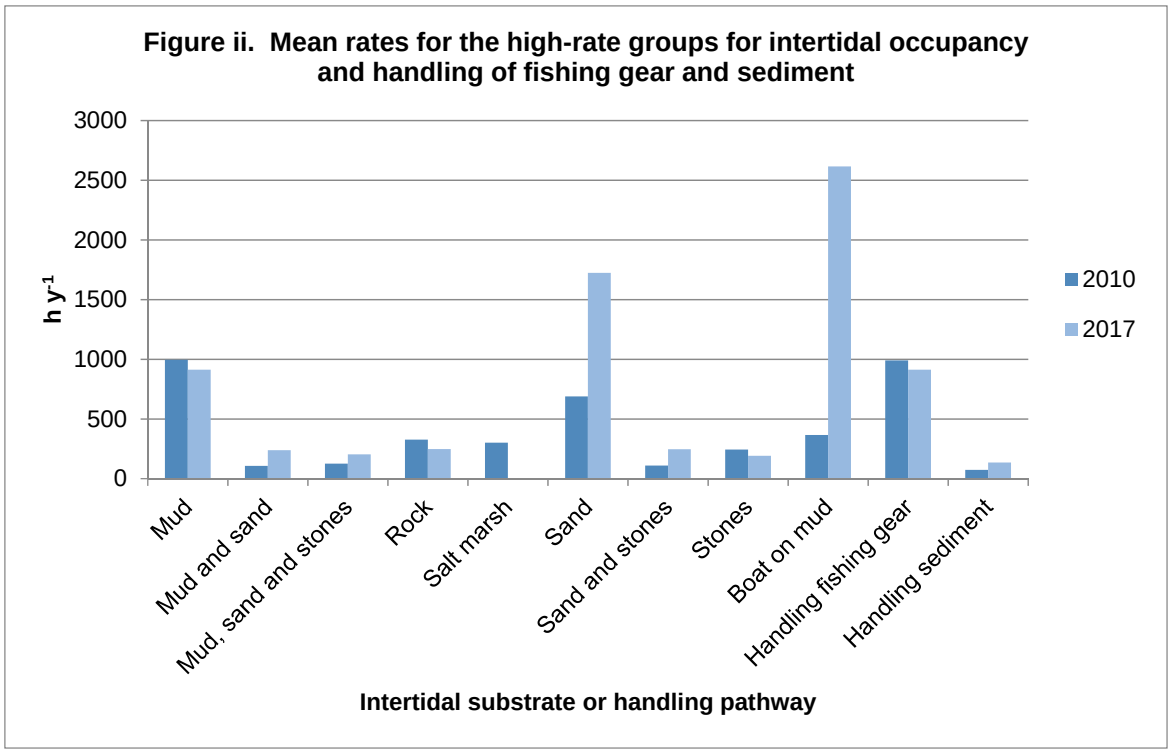
Comparisons with the previous survey

Comparisons were made with the results from a previous habits survey undertaken around the Hinkley Point site in 2010. For the consumption rates of foods from the aquatic survey area, the main differences were a significant increase in the consumption rate for fish and a significant decrease in the consumption rate for wildfowl (see Figure i, below).

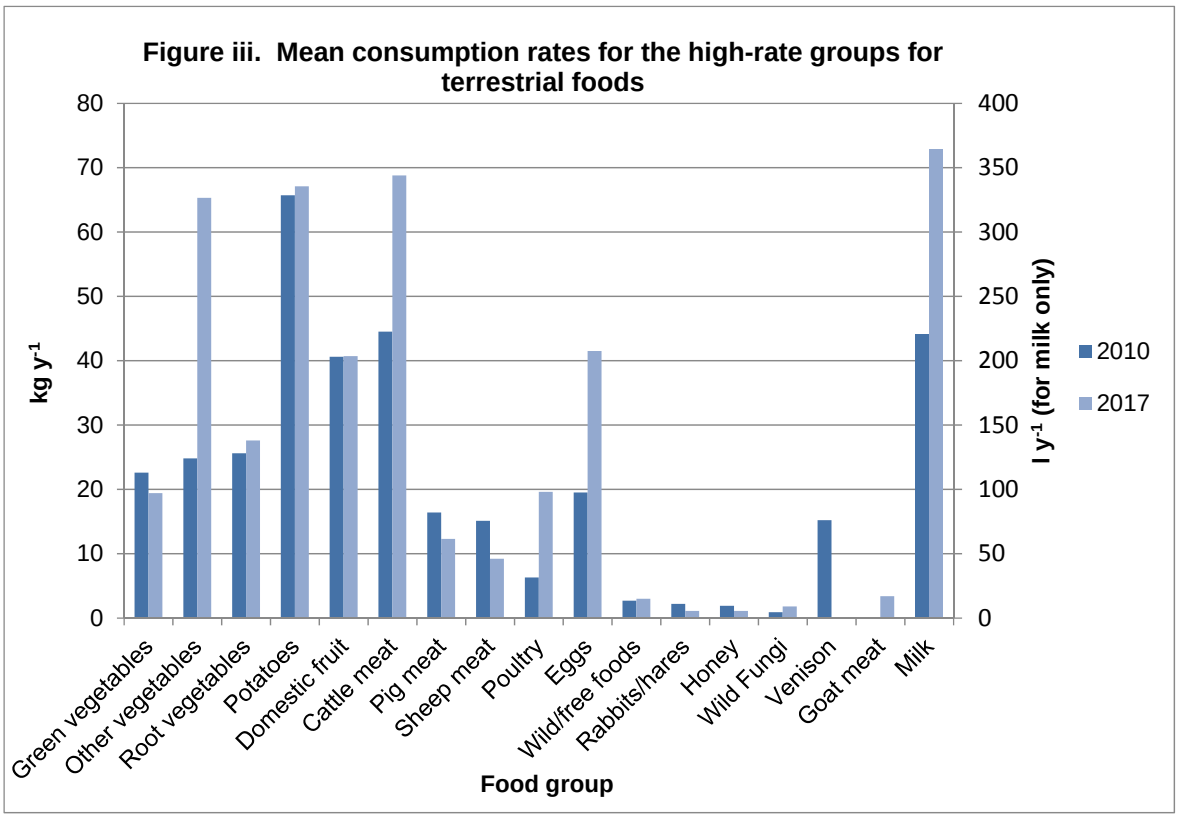
Figure i. Mean consumption rates for the high-rate groups for aquatic foods



The main difference in the intertidal occupancy rates was a significant increase in the occupancy rate on-board a boat resting on mud in 2017 (see Figure ii, page 14). This increase was due to changes in dredging operations at a harbour in the aquatic survey area since the 2010 habits survey, which has led to a build-up of sediment in the harbour and boats were resting on sediment for part of the tidal cycle.



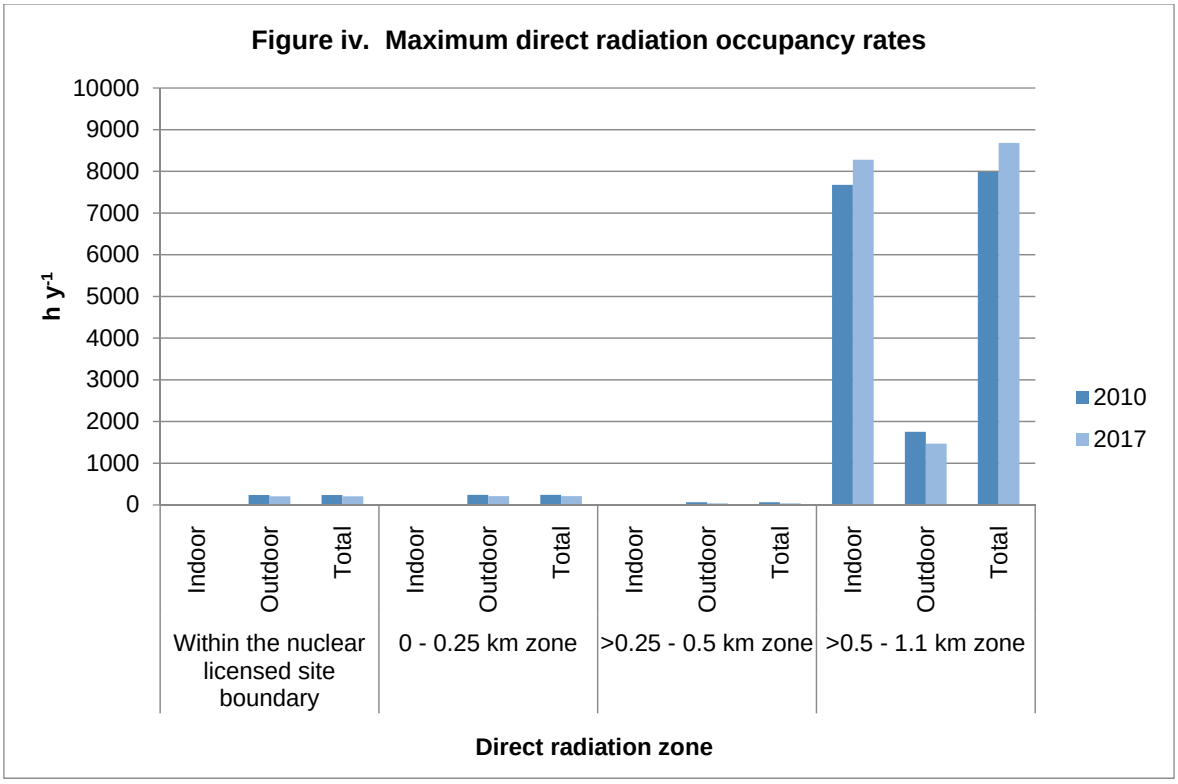
The most notable change in the consumption rates of terrestrial foods was the large increase in the following food groups: other vegetables, cattle meat, poultry, eggs and milk (see Figure iii, below).



The increase in the consumption of poultry was due to the identification of a farming family who were consuming large quantities of chicken. The increase in the consumption of eggs was due to a family who kept numerous chickens and ducks and consumed a large number of eggs every day.

The direct radiation survey area had changed slightly since the 2010 habits survey. The western limit of the survey area moved slightly to the east as part of the Hinkley Point B land was transferred to the Hinkley Point C site. The western half of the direct radiation survey area in 2017 was taken up by the Hinkley Point C construction site. However, this has had limited impact on activities, since this area was previously farmland and there were three residential properties. The occupancy rates in the direct radiation survey area in 2017 were similar to those in 2010 (see Figure iv, below). In 2017 in the >0.5 – 1.1 km zone, there were slight increases in the maximum indoor and total occupancy rates and there was a slight decrease in the maximum outdoor occupancy rate.

Figure iv. Maximum direct radiation occupancy rates



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

The foods and intertidal locations identified in the 2017 Hinkley Point 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 Hinkley Point 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 Hinkley Point A and B nuclear power stations, either through the permitted discharges of liquid or gaseous radioactive wastes into the local environment, or from radiation emanating directly from the stations. This report provides information on activities carried out by members of the public in the vicinity of the Hinkley Point A and B stations, which may influence their radiation exposure. The study has been funded by the Environment Agency, the Food Standards Agency and the Office for Nuclear Regulation 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). These 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 plan to implement the Directive into UK law in 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). The Office for Nuclear Regulation (ONR) has implemented this legislation and is also responsible for regulating, under the Ionising Radiations Regulations 2017 (IRR 17) (UK Parliament, 2017), the exposure of the public to direct radiation from the operations occurring on these sites.

Appropriate discharge limits are set by the Environment Agency, after wide-ranging consultations that include the Food Standards Agency. The Food Standards Agency is responsible 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 under IRR 17. 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) were provided by the National Dose Assessment Working Group (NDAWG), which consisted of representatives of UK Government Bodies and other organisations with responsibilities for dose assessments (EA, SEPA, DoENI, NRPB and FSA, 2002). NDAWG 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 was adopted in Radioactivity in Food and the Environment (RIFE) publications, (e.g. EA, FSA, FSS, NRW, NIEA and SEPA, 2016). NDAWG 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. The UK environment agencies, the Health Protection Agency (now part of Public Health England) and the Food Standards

Agency 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 Hinkley Point nuclear site is located on the coast of Somerset in south-west England, approximately 12 km to the north-west of Bridgwater. There are two separate nuclear power stations, Hinkley Point A and Hinkley Point B, which are adjacent to each other, and for the purpose of this survey, they will be considered together as a single site. Hinkley Point A has two Magnox reactors that ceased generating electricity in 2000. This station is undergoing decommissioning and it is anticipated that it will enter the Care and Maintenance phase by 2027. Hinkley Point B has two Advanced Gas Cooled Reactors, which are expected to continue generating electricity until 2023.

Hinkley Point A is owned by the Nuclear Decommissioning Authority (NDA) and the management and operations contractor responsible for decommissioning the station under contract to the NDA is Magnox Ltd. Hinkley Point B is owned and operated by EDF Energy Nuclear Generation Ltd. Under the radioactive substances provisions of the Environmental Permitting (England and Wales) Regulations 2016, Magnox and EDF are permitted to undertake radioactive substances activities at the Hinkley Point A and Hinkley Point B sites, respectively. This includes permission to discharge gaseous radioactive wastes via stacks to the atmosphere and liquid radioactive wastes via outfalls into the Bristol Channel. The sites are licensed for the purposes of operating certain activities prescribed under the Nuclear Installations Act, 1965. Both sites contain sources of direct radiation. Details of the amounts of gaseous and liquid radioactive waste discharged are published in the RIFE reports, for example, EA, FSA, FSS, NRW, NIEA and SEPA, 2017.

At the time of the habits survey, a new nuclear power station, Hinkley Point C, was under construction, with approximately 2,000 workers at the site per day. The construction area is adjacent to the Hinkley Point A and B nuclear sites and covers the land in the western half of the direct radiation survey area used in this habits survey. A temporary jetty was under construction offshore of the Hinkley Point C site. The coastal path was closed in front of the Hinkley Point C site and had been diverted inland around the Hinkley Point A, B and C sites.

2.2 Survey objectives

The Centre for Environment, Fisheries & Aquaculture Science (Cefas) undertook the Hinkley Point habits survey in 2017 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 Hinkley Point A and B nuclear sites.

Specifically, investigations were conducted into the following:

- The consumption of food from the aquatic survey area
- Activities and occupancy over intertidal substrates
- The handling of fishing gear and sediment
- Activities and occupancy in and on water
- The use of seaweed as a fertiliser or animal feed
- 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
- Any impacts on activities resulting from the construction of Hinkley Point C

2.3 Survey areas

The geographic extents of potential effects from liquid discharges, deposition from gaseous releases, and 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.

The aquatic survey area (see Figure 1, page 22) was defined as the intertidal areas along the Somerset coast between Brean Down and Blue Anchor, and the waters of the Bristol Channel up to 9 km offshore. The tidal estuary of the River Parrett as far upstream as Bridgwater and the tidal estuary of the River Brue as far upstream as the New Clyce Bridge were included in the survey area. This area was taken to represent the predominant area of mixing of discharged radionuclides in seawater.

The terrestrial survey area (see Figure 2, page 23) covered the land within 5 km of the site centre (National Grid Reference: ST 211 460), to encompass the main areas of potential deposition from gaseous discharges.

The direct radiation survey area (see Figure 2, page 23) covered the land and waters of the Bristol Channel within 1.1 km of the Hinkley Point nuclear licensed site boundary, which delineates the external boundary of the Hinkley Point A and B nuclear sites. The direct radiation survey area was sparsely populated; therefore, the area was extended to include residences bordering the 1 km area usually used in habits surveys. 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 and terrestrial survey areas were used in the previous habits survey conducted by Cefas in the Hinkley Point area, which was in 2010 (Clyne *et al*., 2011). The direct radiation survey area was slightly different in 2017 because the Hinkley Point B nuclear licensed site boundary had changed since the 2010 habits survey. The western end of the boundary, and therefore, the survey area, had moved slightly to the east compared with the 2010 survey, as some of the land had been transferred to the Hinkley Point C site.

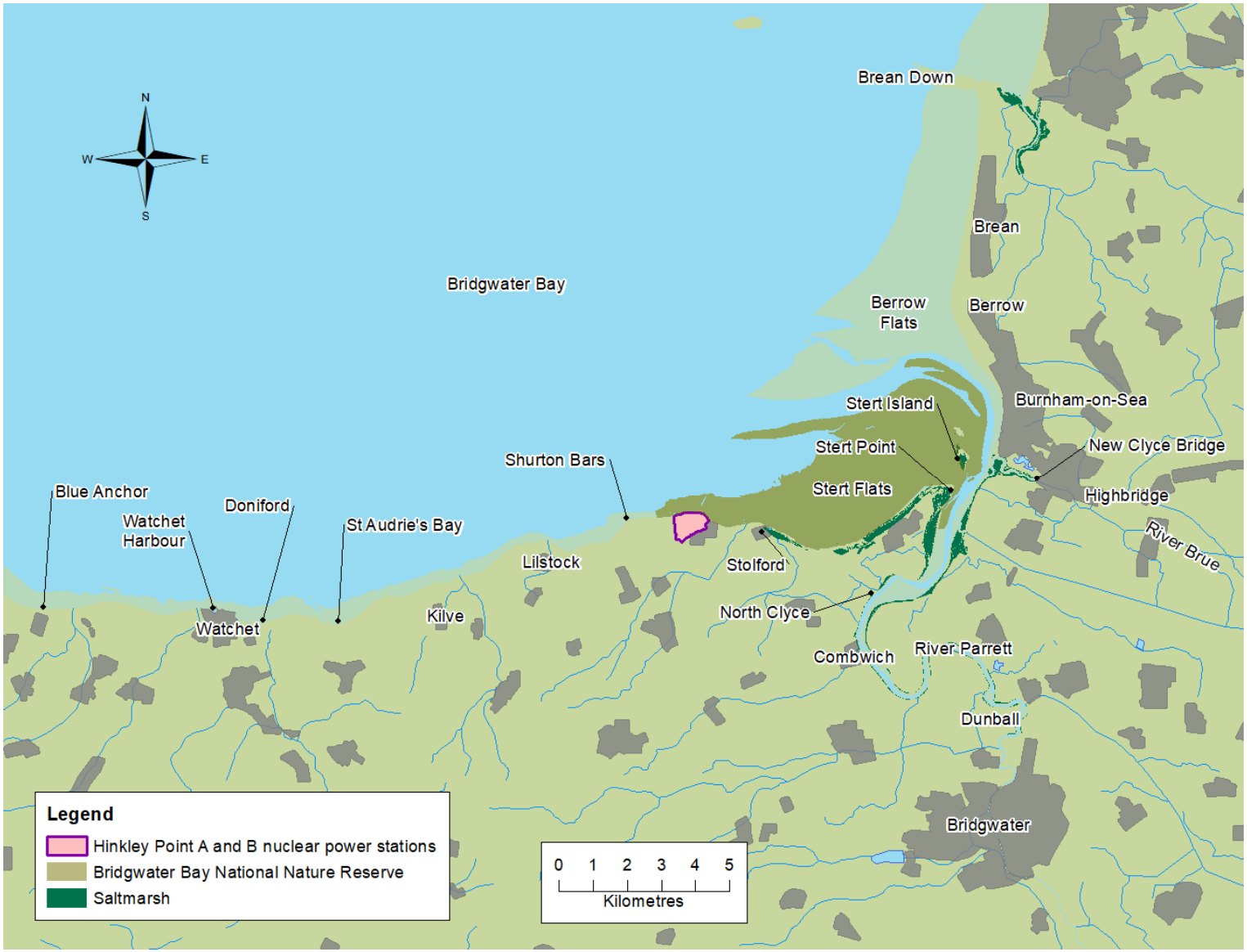


Figure 1. The Hinkley Point aquatic survey area

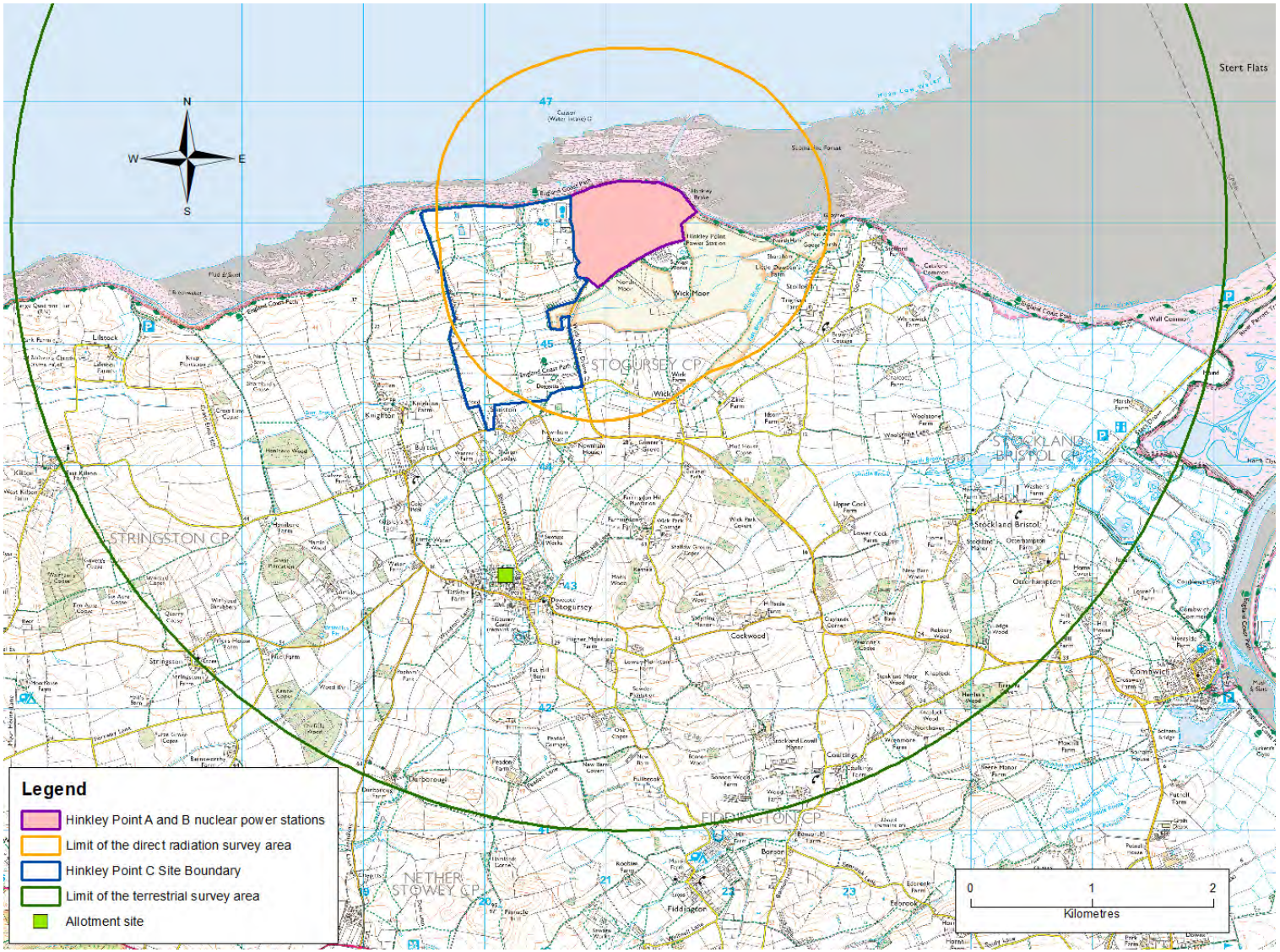


Figure 2. The Hinkley Point terrestrial and direct radiation survey areas

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 Hinkley Point site. People with local knowledge of the survey area were contacted for information relevant to the various exposure pathways. These included representatives from parish councils who provided information on allotment sites, beekeeping associations who provided contacts for local beekeepers and the Environment Agency who provided details of elver fishing permits.

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 18th to the 28th July 2017 according to techniques described by Leonard *et al.* (1982). During the fieldwork, a meeting was held between members of the survey team and representatives from EDF Energy Nuclear Generation Ltd and Magnox Ltd. 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:

- At the time of the habits survey, routine decommissioning works were being undertaken at Hinkley Point A and routine operations were being undertaken at Hinkley Point B.
- The Hinkley Point B nuclear licensed site boundary has changed since the 2010 habits survey. The boundary at the western end has moved slightly to the east as this area has been transferred to the Hinkley Point C site.
- Control measures taken to limit the possibility that contamination is transferred off-site by wildlife include: proactively maintaining Hinkley Point A site buildings to reduce the likelihood of wildlife entering; discouraging the nesting of seagulls on the site by removing eggs or removing nests; and culling rabbits. Wildlife found in controlled areas at Hinkley Point A were monitored. Wildlife were not monitored at Hinkley Point B since the buildings are more enclosed so it is unlikely that wildlife could enter controlled areas.
- Due to the construction works at the new Hinkley Point C site, the coastal path has been redirected inland around the Hinkley Point A, B and C sites. The public could still access the shore in front of the Hinkley Point A and B sites.
- Information about potential exposure pathways and activities in the area included angling, birdwatching and wildfowling on the shore at Hinkley Point, and a new nature reserve at Steart Marshes.

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, fishermen, anglers, people spending time on intertidal substrates, 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 intertidal substrates in the aquatic area, and indoors and outdoors at the 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 Hinkley Point 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. These '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 1300 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 Hinkley Point A and B 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 sailing clubs 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 sailing club, the occupancy rates on water for the members.

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 and 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 groups of people were collected, such as occupancy rates in the aquatic survey area for members of clubs, only a limited number of representative individuals were 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 dose assessments. In this series of habits survey reports, such data is usually presented in Annex 3. It was not necessary to estimate data for the Hinkley Point survey, but Annex 3 is included in this report to maintain consistency of presentation through the series of reports.

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'. Similarly, for aquatic food consumption, all crustacean species are grouped as 'crustaceans'. For external exposure over intertidal sediments, occupancies over the same substrate (e.g. sand) 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 - 1.1 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, intertidal 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 secondary 'cut-off' 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, intertidal 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 intertidal 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, 2017).

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 responses.
- 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 the habits survey 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.
- 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 (see Figure 1, page 22) was defined as the intertidal areas along the Somerset coast between Brean Down and Blue Anchor, and the adjacent waters of the Bristol Channel up to 9 km offshore. The tidal estuary of the River Parrett as far upstream as Bridgwater and the tidal estuary of the River Brue as far upstream as the New Clyce Bridge were included in the survey area.

The survey area is within Bridgwater Bay, which has a large tidal range and fast running water. The shore between Brean Down and Burnham-on-Sea is predominantly sand. At low tide throughout this area and further west towards Hinkley Point there are vast expanses of mud and sand flats, which extend several kilometres from the mean high-water line. Between Stert Point and Blue Anchor the shore is a mixture of sand, mud and sand, stones and rocky reefs. Activities were limited at some locations due to the strong tides and the soft mud and sand. There are two main rivers that flow into the survey area, the River Parrett and River Brue. The banks of these rivers are predominantly soft mud.

The Bridgwater Bay National Nature Reserve (NNR) covers the intertidal area from Burnham-on-Sea to Lilstock and includes the lower reaches of the River Parrett. A new wetland reserve at Steart Marshes, which is located on the southern part of the Steart Peninsula, was completed in 2014.

The aquatic survey area is described below starting at Brean Down and progressing around Bridgwater Bay in a clockwise direction, ending at Blue Anchor.

Brean Down, Brean and Berrow

At the northernmost part of the aquatic survey area, Brean Down is a rocky headland with steep cliffs that extend approximately 2 km offshore. From Brean Down, the continuous sandy beach extends south for approximately 11 km, encompassing the areas of Brean, Berrow and Burnham-on-Sea. The beaches at Brean (see Figure 3, page 32) and Berrow are firm sand on the mid to upper shore and at low tide the soft mud and sand flats extend several kilometres offshore. A coastal road runs parallel with the shore from Brean to Berrow and this is lined with holiday camps and caravan sites. The beaches at Brean and Berrow are easily accessed and in the summer months the public are permitted to park their cars on the beaches. The beaches were popular with tourists and locals who were angling, bait digging, dog walking, walking, playing and horse riding. Several people operated small businesses on the beach. Beach wardens patrolled the beaches between March and October.

Figure 3. Brean

Burnham-on-Sea

Burnham-on-Sea is a popular seaside town located to the south of Berrow. The beach is sand with mud and sand flats on the lower shore. The coastal road provides good access to the beach and there is parking along the seafront. A coastal sea defence wall backs the length of the beach. The main part of the beach was popular with families playing and sitting on the beach (see Figure 4, below). Other activities including bait digging and angling were identified at Burnham-on-Sea.

Figure 4. Burnham-on-Sea

The RNLI, the coastguard and a hovercraft search and rescue centre were based in the vicinity of a public slipway that was used to launch small boats, dinghies and jet skis.

River Brue and River Parrett

The River Brue enters Bridgwater Bay to the south of Burnham-on-Sea and is tidal up to the sluice gates at New Clyce Bridge in Highbridge. The river has a large tidal range and steep, soft mud banks with areas of salt marsh. There is a public footpath along the river bank from Burnham-on-Sea to Highbridge but the footpath is not tide washed.

At the mouth of the River Brue there were moorings on the soft mud banks where the sail boats were resting on mud at low tide (see Figure 5, below). Yachts and angling boats were moored in the river upstream as far as New Clyce Bridge.

Figure 5. River Brue

The River Brue joins the River Parrett before entering Bridgwater Bay and from this confluence the River Parrett is tidal for approximately 40 km inland. There are two public footpaths along the River Parrett along the top of the river bank, one on the eastern bank from Burnham-on-Sea to Dunball and one along the western bank from North Clyce to Bridgwater. A large area of farmland that boarders the western shore of the lower reaches of the River Parrett has been turned into a wetland reserve. The Environment Agency and the Wildfowl & Wetlands Trust have created the wetland by breaching a sea wall so that Steart Marsh floods on a high tide, providing new habitats. The footpaths around the reserve are approximately 10 km in length and are on a raised bank above the intertidal area.

Combwich is a village located on the western shore of the River Parrett. There is a small inlet at Combwich where sail boats are moored on the muddy banks. At the time of the survey, works were planned on a wharf in the inlet as part of the Hinkley Point C construction project, and some of the privately-owned boats that were moored in the area have been moved to dry dock or temporarily relocated. One individual at Combwich spent a significant amount of time undertaking boat maintenance on their boat while it was resting on mud.

Stert Point to Stolford

Stert Point is located at the tip of a peninsula at the mouth of the River Parrett. To the north and west of Stert Point at low tide there is a vast expanse of mud and sand flats called Stert Flats. The shore between Stert Point and Stolford is sand with areas of mud, sand and stones, which is backed by salt marsh. Activities identified in this area included walking, dog walking and collecting small amounts of samphire for consumption. Cattle were observed grazing on the salt marsh at Stert Point. The farmland bordering this area has been acquired by the Bristol Port Company for a managed realignment project, which will involve the creation of new intertidal habitats and visitor facilities.

The shore at Stolford comprises mud, sand, stones and rocky outcrops, and is backed by sea defence boulders (see Figure 6, page 35). This area was popular with walkers, dog walkers, anglers and families playing. Many people were observed walking along the coastal path on a raised bank at the top of the shore, which was not tide washed. A small amount of samphire, whelks*, Porphyra umbilicalis* and sea lettuce were collected for consumption from the Stolford area. Large amounts of seaweed were periodically washed up on the shore at Stolford and several people were collecting seaweed to use as a fertiliser on their gardens and allotment plots.

Figure 6. Stolford

Hinkley Point, Shurton Bars and Lilstock

The shore at Hinkley Point, which is backed by sea defence boulders, is predominantly sand and stones with areas of mud and sand, and rocky reefs on the lower shore. People were using the shore in front of the Hinkley Point A and B sites for activities including angling, bait digging, wildfowling and walking. However, there was limited public access to the shore in front of the Hinkley Point C site due to the construction of a jetty. The coastal path in front of the Hinkley Point C site was closed and the path was diverted inland around the Hinkley Point A, B and C sites during the construction period.

The shore between Hinkley Point and Lilstock is backed by cliffs and comprises stones, sand, mud and rocky reefs. To the west of Hinkley Point, the shore is known locally as Shurton Bars. Activities at Shurton Bars included angling, dog walking and swimming. Lilstock is predominantly stones on the upper shore with rocks, mud and sand on the lower shore. There is road access and a car park approximately 200 meters from the beach. Lilstock was popular with anglers, as well as with people walking, dog walking and bait digging. Many people were walking along the coastal path along the cliff which was not tide washed.

Kilve, St Audrie's Bay and Doniford

The shore from Lilstock to Kilve is backed by shale and limestone cliffs and Kilve is a well-known location for collecting fossils. There is road access to Kilve and parking not far from the beach. The upper shore is predominantly stones and the lower shore is rocky reefs with areas of mud and sand. The area was popular with fossil collectors, walkers and anglers. Many people were walking and dog walking on the coastal path along the top of the cliff which was not tide washed.

St Audrie's Bay has a large sandy beach with rocky reefs and cliffs at the eastern and western ends of the bay. The beach was only accessible through a holiday park and it was predominantly used by people from the holiday park. The area was popular with anglers.

Doniford beach had a car park which was concealed from the road by bushes. The shore was mud, sand and stones with rocky reefs (see Figure 7, below). The beach was popular with local people and with people staying at the caravan park located next to the shore. Angling, walking, dog walking, rock pooling and playing were observed at this location.

Figure 7. Doniford

Watchet and Blue Anchor

The shore at Watchet comprises sand, mud, stones and rocky reefs (see Figure 8, below). Access to the shore is possible either side of the harbour. Dog walking, angling, beachcombing and birdwatching were identified on the shore to the west of the harbour. The harbour has an inner and outer basin; the outer basin is tidal and there is a sea gate to the inner basin. A marina with berths for sail boats, angling boats and cruisers is located in the inner harbour. There is a public slipway in the outer harbour which was used to launch boats. The Watchet Coastguard was based at the harbour and operated along the coast between Blue Anchor and Stert.

Figure 8. Watchet

Between Watchet and Blue Anchor, the substrate is predominantly sand, stones, mud and rocky reefs. The shore at Blue Anchor is predominantly sand and is backed by a sea wall. A road runs parallel with the beach and the landward side of the road is lined with caravan parks. Due to the easy road access, the beach was frequently visited by people who were dog walking, angling, bait digging, rock pooling and families playing on the beach (see Figure 9, page 38). Anglers regularly fished from the sea wall at high tide.

Figure 9. Blue Anchor

4.2 Commercial fisheries

One commercial fisherman was identified operating in the survey area. The fisherman was using two types of fixed nets, which were gill nets and an ancient method using conical shrimp nets on stakes. The nets were located in Bridgwater Bay and the catch included brown shrimps, bass, grey mullet, Dover sole, thornback ray, flounder, eel, cod, whiting and sprats.

Elver fishing took place along the banks of the River Parrett where freshwater entered the tidal river and it was particularly popular on the banks of the river in and around Bridgwater. The fishermen caught elvers using dip nets with long handles while standing on the muddy river banks. Approximately 140 elver fishing licences were issued in 2017 by the Environment Agency for the River Parrett, which has increased from 100 licences issued at the time of the last habits survey in 2010. The elver fishing season is from the middle of February to the end of May depending on the environmental conditions. The consumption of elvers was not identified during the survey.

In 2013, a new oyster fishery started in Porlock Bay and oysters from the fishery are being sold commercially. The fishery is located approximately 15 km to the west of the aquatic survey area used in this habits survey so the fishery has not been considered as part of this survey.

4.3 Destination of seafood originating from the aquatic survey area

The fish and shellfish caught within the survey area were sold direct to the public. Elvers were predominantly sold in the UK and exported to Northern Europe for restocking rivers where eel stocks have declined.

4.4 Hobby fishing, angling and non-commercial shellfish collection

In this report, the term 'hobby fishing' is used to describe recreational fishing on a small scale with gear such as nets or pots. It is usually carried out by fishermen who do not have commercial fishing licences and therefore it is illegal to offer the catch for sale. Hobby fishermen were identified operating set nets during the last survey in 2010, but in 2017, the nets were no longer in operation. It was reported that hobby fishermen were operating fixed nets on the shore at Watchet.

A chartered angling boat operated inside the survey area, primarily between Blue Anchor and Kilve. Many private angling boats were moored or launched from slipways in Burnham-on-Sea, the River Brue, the River Parrett, Combwich, Watchet and other locations throughout the survey area. Shore angling was popular at many locations from Brean Down to Burnham-on-Sea, and from Stolford to Blue Anchor. Much of the shore angling took place on the rocky reefs, on stones or on sand. People were angling from the sea wall at Blue Anchor and it was reported that people were angling from the harbour walls at Watchet and from the sea walls at Burnham-on-Sea. The main edible species caught by shore anglers and boat anglers were cod, whiting, bass, mackerel and thornback ray.

The only non-commercial shellfish collection identified in the survey area was for whelks. Small amounts of whelks were collected on Stert Flats near Stolford and were consumed.

4.5 Wildfowling

One wildfowling club was identified with members who shot wildfowl in the survey area. The club had the rights to shoot in two areas within the Bridgwater Bay National Nature Reserve. One area was near the mouth of the River Parrett from South Clyce to Steart Marshes nature reserve where Natural England issue the permits to shoot and the other area was the shoreline between Stolford and Lilstock which is a 'free shooting zone' so permits are not required. The wildfowling season is from September to February. The species being shot included mallard, wigeon, pintail and teal. The wildfowl were consumed by the wildfowlers and their families.

4.6 Other pathways

Dredging is planned to be undertaken at a harbour in the survey area in order to prevent silt from building up in the harbour. Dredging is also planned to take place in the summer of 2018 as part of the construction works at Hinkley Point C. This will involve dredging mud and sediment and tunnelling to a distance of >3 km offshore from the Hinkley Point C site for the cooling water system works. The dredged material is planned to be disposed of at the Cardiff Grounds (www.edfenergy.com).

Several people collected small quantities of samphire for their families' consumption from the salt marshes and mud flats around Stolford and Stert Flats. *Porphyra umbilicalis* and sea lettuce were also being collected from the shore off Stolford and were consumed.

Four people were identified who used seaweed as a fertiliser on their vegetable plots in their gardens or allotments plots. The seaweed (mostly bladder wrack) was collected from Stolford after it had been washed-up onto the shore. The seaweed was left to rot and was then used to fertilise the soil where vegetables and fruit were grown. The use of seaweed as livestock feed was not identified.

Cattle were observed grazing on salt marsh at Stert Point. The farmer of the livestock did not live in the area and the survey team were unable obtain further information.

4.7 Food consumption data

Consumption data for aquatic foods are presented in Tables 3 to 7 for adults. No consumption of aquatic foods was identified for the child or infant age group. 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.

Adults' consumption rates of vegetables and fruit that were grown on land that had been fertilised with seaweed collected from the shore in the aquatic survey area are presented in Table 8, for use in studies of the potential dose arising from the possible transfer of radionuclides from sea to land.

Adults' consumption rates

The people consuming the greatest quantities of food from the aquatic survey area were fishermen, anglers, wildfowlers, and the families and friends of these groups of people.

Table B (below) presents a summary of the adults' consumption rates for the following food groups: fish; crustaceans; molluscs; wildfowl; marine plants/algae. 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 for fish, crustaceans and molluscs based on national data, which are referred to as 'generic' data in this report. No generic consumption rates are available for wildfowl or marine plants/algae.

Table B. Summary of adults' consumption rates of foods from the aquatic 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})
Fish	36	12	75.6	25.7	45.1	75.6	15.0	40.0
Crustaceans	9	5	20.6	9.2	11.7	18.6	3.5	10.0
Molluscs	2	2	0.7	0.7	0.7	0.7	3.5	10.0
Wildfowl	7	4	4.8	2.7	3.8	4.8	Not determined	Not determined
Marine plants/algae	8	6	1.0	0.5	0.8	1.0	Not determined	Not determined

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

The predominant species of fish consumed by adults were cod, bass, and whiting, with smaller quantities of conger eel, Dover sole, European eel, flounder, grey mullet, herring, lemon sole, lesser spotted dogfish, ling, plaice, sprat and thornback ray. The fish were caught at various locations throughout the aquatic survey area. Of the fish consumed by the 12 people in the high-rate group, the percentage breakdown of species, rounded to the nearest 5%, was 60% cod, 15% bass, 5% Dover sole, 5% European eel, 5% lemon sole, 5% thornback ray and 5% whiting. Conger eel, herring, lesser spotted dogfish, ling, and plaice were not consumed by the members of the high-rate group.

The main species of crustaceans consumed by adults was brown shrimps, with smaller quantities of common prawns. The brown shrimps and common prawns were caught in Bridgwater Bay. The only crustacean species consumed by the five people in the high-rate group was brown shrimps.

The only species of molluscs consumed by adults was whelks. The whelks were collected offshore at Stolford on a very low tide.

The main species of wildfowl consumed by adults were mallard, pintail and wigeon, with smaller quantities of teal. These were shot on the banks along the River Parrett and on the shore near Hinkley Point. Of the wildfowl consumed by the four people in the high-rate group, the percentage breakdown of species, rounded to the nearest 5%, was 55% mallard, 20% wigeon, 15% pintail and 10% teal.

The main species of marine plants/algae consumed by adults was samphire, with smaller quantities of *Porphyra umbilicalis* and sea lettuce. The plants were collected from the shore at Stolford and Stert Flats. Of the marine plants/algae consumed by the six people in the high-rate group, the percentage breakdown of species, rounded to the nearest 5%, was 70% samphire, 25% *Porphyra umbilicalis* and 5% sea lettuce.

Consumption of vegetables and fruit grown on land where seaweed has been used as a fertiliser

Consumption rate data for foods grown in soil that had been fertilised with seaweed collected from the shore in the aquatic survey area are presented in Table 8. Seven adults were identified consuming foods which were grown in seaweed fertilised soil from the following food groups: green vegetables, other vegetables, root vegetables, potato and domestic fruit. These data are presented for use in studies of the potential dose arising from the possible transfer onto the land of radionuclides originating from liquid discharges made into the sea. However, these foods were grown in the terrestrial survey area and the primary reason for investigating them was to gain information about foods potentially subject to gaseous discharges. Therefore, they are also included in the terrestrial food tables presented later in this report, and, in order to avoid double accounting in assessments of total dose, are entered only once in the annexes, where they are classified as terrestrial foods.

4.8 Intertidal occupancy

Intertidal occupancy rates for adults are presented in Table 9 and intertidal occupancy rates for children and infants are presented in Table 10. It should be noted that there are often more than one substrate at one named location and that substrates at a given location are liable to change over time. Activities were assigned to the predominant substrate over which they were taking place.

Adults' intertidal occupancy rates

Table D (see page 43) presents a summary of the adults' intertidal occupancy rates 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 D. Summary of adults' intertidal occupancy rates					
Intertidal 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})**
Mud	21	1	912	912	562
Mud and sand	39	23	546	238	376
Mud, sand and stones	9	3	365	203	317
Rock	16	3	326	248	282
Sand	55	6	2450	1723	2083
Sand and stones	51	29	447	246	426
Stones	43	21	390	191	273
Boat on mud	9	3	2878	2615	2878

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

- For mud: attending nets in Bridgwater Bay.
- For mud and sand: search and rescue duties from Stolford to Brean and along the River Parrett; dog walking at Stolford and Stert Flats; collecting samphire at Stert Flats; angling and bait digging at Burnham-on-Sea.
- For mud, sand and stones: dog walking at Hinkley Point, Stolford and Shurton Bars; collecting seaweed from Stolford and Shurton Bars.
- For rock: angling at Hinkley Point and Shurton Bars.
- For sand: working on the shore at Brean and Berrow.
- For sand and stones: working on the shore at Berrow; dog walking at Watchet, Doniford and Blue Anchor; angling at Blue Anchor and Doniford; walking at Doniford and Blue Anchor; rock pooling at Doniford and various locations within the survey area.
- For stones: angling at Kilve, Lilstock and Stolford; dog walking at Stolford, Lilstock and Shurton Bars; beachcombing, birdwatching and walking at Kilve and Stolford.
- For boat on mud: living on a boat in the survey area.

Children's and infants' intertidal occupancy rates

Table E (see page 44) presents a summary of the children's and infants' intertidal occupancy rates 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 E. Summary of children's and infants' intertidal occupancy rates

Intertidal 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)					
Mud and sand	2	2	104	88	103
Mud, sand and stones	1	1	70	70	Not applicable
Rock	1	1	12	12	Not applicable
Sand	10	7	295	210	295
Sand and stones	4	2	168	168	168
Stones	8	1	139	139	121
Infant age group (0 – 5 years old)					
Mud and sand	3	2	104	88	103
Mud, sand and stones	1	1	4	4	Not applicable
Rock	1	1	12	12	Not applicable
Sand	2	2	144	96	142
Stones	2	2	12	8	12

The activities undertaken by individuals in the child age group high-rate groups for occupancy over each of the intertidal substrates were:

- For mud and sand: dog walking at Stert Flats; playing at Burnham-on-Sea.
- For mud, sand and stones: dog walking at Stolford.
- For rock: rock pooling at Blue Anchor.
- For sand: working on the shore at Brean; playing, rock pooling and walking at Blue Anchor; playing at Doniford.
- For sand and stones: rock pooling at Doniford.
- For stones: dog walking at Lilstock and Shurton Bars.

The activities undertaken by individuals in the infant age group high-rate groups for occupancy over each of the intertidal substrates were:

- For mud and sand: dog walking at Stert Flats; playing at Burnham-on-Sea.
- For mud, sand and stones: walking at Stolford.
- For rock: rock pooling at Blue Anchor.
- For sand: rock pooling and playing at Blue Anchor.
- For stones: playing at Stolford; walking at Kilve.

4.9 Gamma dose rate measurements

Gamma dose rate measurements were taken over four intertidal substrates. All measurements were taken at a height of 1 metre above the substrate. The results are presented in Table 11 and are summarised in Table F, below.

Table F. Summary of gamma dose rate measurements taken over intertidal substrates

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] ($\mu Gy\ h^{-1}$)
Mud	2	0.068	0.069
Mud and sand	2	0.053	0.064
Sand	8	0.050	0.069
Sand and stones	1	0.070 (one measurement only)	

Notes

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

For comparison, natural background levels have been estimated at 0.05 $\mu Gy\ h^{-1}$ over sand, 0.07 $\mu Gy\ h^{-1}$ over mud and over salt marsh, and 0.06 $\mu Gy\ h^{-1}$ over other substrates (EA, FSA, FSS, NRW, NIEA and SEPA, 2017).

4.10 Handling of fishing gear and sediment

Handling fishing gear that has become entrained with fine sediment particles, or handling sediment while undertaking activities such as bait digging or mollusc collecting, can potentially give rise to skin exposure from beta radiation. Doses to the skin are considered within the dose limitation system (ICRP, 1991).

Fishing gear can also be a source of gamma exposure due to occupancy in the vicinity of the gear. However, this pathway is minor compared with the exposure received during occupancy over intertidal areas and it has therefore been omitted from the report. Handling of angling equipment was not considered to be a significant pathway. Therefore, as in previous surveys, data for this pathway were not collected.

Handling rates of fishing gear and sediment for adults are presented in Table 12. No handling of fishing gear or sediment was identified for children or infants.

Adults' handling rates of fishing gear and sediment

Table G (see page 46) presents a summary of the handling rates of fishing gear and sediment for adults. The table includes the mean handling rates for the high-rate groups and the observed 97.5th percentile rates.

Table G. Summary of adults' handling rates of fishing gear and sediment

Handling activity	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})
Handling fishing gear	1	1	912	912	Not applicable
Handling sediment	10	2	166	135	152

The activities undertaken by people in the adult high-rate groups for handling included:

- For handling fishing gear: handling nets in Bridgwater Bay.
- For handling sediment: bait digging at Blue Anchor, Stolford, Burnham-on-Sea and Hinkley Point.

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 13 for adults and Table 14 for children. No activities in or on water were identified for infants. Where generic data for groups of people were collected, for example members of sailing clubs, only representative examples have been included in the data presented.

Activities in water

The activities identified taking place in water in the aquatic survey area were kayaking and swimming. Kayaking is classified as an 'in water' activity since it is likely to lead to the ingestion of seawater. Seven observations were recorded for adults and two observations were recorded for the child age group. The highest occupancy rate for adults was 20 h y^{-1} for two individuals who were kayaking at Stolford. The highest occupancy rate for the child age group was 3 h y^{-1} for a child who was swimming at Blue Anchor.

Activities on water

The activities taking place on water in the aquatic survey area were living on a boat, angling, boat maintenance, sailing, canoeing, power boating, dredging, and search and rescue duties. Thirty-eight observations were recorded for adults, 17 observations were recorded for the child age group. The highest occupancy rate for adults was 5800 h y^{-1} for two individuals who were living on a boat in the survey area. The highest occupancy rate for the child age group was 210 h y^{-1} for 17 children who were sailing, canoeing and power boating off Watchet.

5 TERRESTRIAL RADIATION PATHWAYS

5.1 Terrestrial survey area

The terrestrial survey area (see Figure 2, page 23) covered the land within 5 km of the site centre (National Grid Reference: ST 211 460).

The land in the terrestrial survey area is predominantly agricultural. The Hinkley Point C construction site is located adjacent to the western side of Hinkley Point A and B on land that was previously farmland. The main population centre is the village of Stogursey, which is situated to the south-west of the Hinkley Point site. The villages Burton, Shurton and Knighton are also located to the south-west. The village of Stolford is located to the east of the site and the villages of Stockland Bristol, Otterhampton and Coultings are located to the south-east of the site.

Fifteen working farms were identified in the Hinkley Point terrestrial survey area. Of these farms:

- Three produced milk (from dairy cattle)
- Two produced milk (from dairy cattle) and beef cattle
- One produced milk (from dairy cattle), beef cattle and pigs
- Three produced beef cattle
- One produced beef cattle and lambs
- Two produced chickens
- One produced lambs
- One produced dairy followers (young dairy cattle, intended to replace older dairy cows)
- One produced arable crops for animal feed

Grass (for silage), beans, wheat, corn, barley and maize were grown for use as animal feed on the farms on which they were produced or were sold for animal feed. No arable crops were produced for human consumption.

Farmers and their families were consuming milk, beef, pork, lamb and chicken produced commercially on their own farms.

One allotment site with a total of 10 individual plots, and many private gardens, were located in the survey area. A wide variety of fruit and vegetables were grown and some people used small amounts of seaweed as a fertiliser. One person kept ducks for eggs and several people kept chickens for eggs, which were consumed by their own families or sold from the door.

Three beekeepers were identified with a total of 10 hives in the survey area. Six hives were located to the south-west of the survey area, two hives were located to the south, and two hives were located near the edge of the southern outer limit of the survey area. The average production of honey per hive ranged from 4 kg y^{-1} to 7 kg y^{-1}. The honey was consumed by the beekeepers, their families and friends, and was being sold.

The wild foods that were collected from within the survey area and consumed were blackberries, damsons, elderberries, hazelnuts and mushrooms.

Shooting took place on many of the farms within the survey area and one organised game shoot was identified. Pheasant, pigeon, partridge and rabbits were being consumed.

The consumption of borehole water by humans was identified at three farms in the survey area. 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 borehole water and spring water or had access to stream water or ditch water in the fields.

The soil classification on farms where interviews were conducted was mainly clay or a mixture of heavy and sandy loam.

5.2 Destination of food originating from the terrestrial survey area

The destination of foods produced in the survey area included the following:

- Milk was sold to national dairy companies.
- Beef was sold at livestock markets in Somerset, to a food processor, to a national supermarket chain and to a local butcher just outside the survey area.
- Lambs were sold at livestock markets in Somerset and to an abattoir.
- Pigs were sold to an abattoir.
- Chickens were sold to supermarkets nationwide.
- Chicken eggs were sold from the door.
- Honey was sold from the door and at a local butcher just outside the survey area.

5.3 The potential transfer of contamination off-site by wildlife

Representatives from the Hinkley Point A and B sites reported that measures taken to limit the possibility that contamination is transferred off-site by wildlife included: proactively maintaining Hinkley Point A site buildings to reduce the likelihood of wildlife entering; discouraging the nesting of seagulls on the site by removing eggs or removing nests; and culling rabbits. Wildlife found in controlled areas at Hinkley Point A were monitored. Wildlife were not monitored at Hinkley Point B since the buildings are more enclosed and it is unlikely that wildlife could enter controlled areas.

5.4 Food consumption data

Consumption data for locally produced foodstuffs potentially affected by deposition of gaseous discharges are presented in Tables 15 to 30 for adults and Tables 31 to 43 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 44.

Adults' consumption rates

Consumption of locally produced foods was identified in the following 16 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; goat meat. No consumption of venison was identified.

Table H (see page 51) 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 H. 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	41	18	30.6	11.3	19.4	30.6	15.0	45.0
Other vegetables	50	4	80.2	50.5	65.3	73.5	20.0	50.0
Root vegetables	43	10	37.1	16.0	27.6	37.1	10.0	40.0
Potato	43	10	125.1	52.6	67.1	121.5	50.0	120.0
Domestic fruit	42	9	58.0	25.0	40.7	57.7	20.0	75.0
Milk	16	5	414.6	311.0	364.1	396.0	95.0	240.0
Cattle meat	21	11	94.6	47.3	68.8	94.6	15.0	45.0
Pig meat	11	11	16.9	10.7	12.3	16.9	15.0	40.0
Sheep meat	9	9	13.0	5.7	9.2	13.0	8.0	25.0
Poultry	14	2	19.6	19.6	19.6	19.6	10.0	30.0
Eggs	38	12	82.1	29.7	41.5	51.1	8.5	25.0
Wild/free foods	46	16	4.7	1.8	3.0	4.7	7.0	25.0
Rabbits/hares	7	7	1.3	0.9	1.1	1.3	6.0	15.0
Honey	14	6	1.4	0.7	1.1	1.4	2.5	9.5
Wild fungi	19	6	2.4	1.1	1.8	2.4	3.0	10.0
Goat meat	2	2	3.4	3.4	3.4	3.4	Not determined	Not determined

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

Four of the mean consumption rates for the high-rate groups were greater than the generic 97.5th percentile consumption rates. These were for other vegetables, milk, cattle meat and eggs. Ten of the mean consumption rates for the high-rate groups exceeded the generic mean consumption rates. These were for green vegetables, other vegetables, root vegetables, potato, domestic fruit, milk, cattle meat, sheep meat, poultry and eggs. Five of the observed 97.5th percentile consumption rates exceeded the generic 97.5th percentile consumption rates. These were for other vegetables, potato, milk, cattle meat and eggs.

Children's and infants' consumption rates

Nine individuals in the child age group and one individual in the infant age group were identified consuming foods from the terrestrial survey area. Table I (see page 52) 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: sheep meat; poultry; goat meat. In the infant age group, no consumption of foods from the following food groups was identified: green vegetables; other vegetables; root vegetables;

potato; domestic fruit; pig meat; sheep meat; poultry; eggs; wild/free foods; rabbits/hares; honey; wild fungi; goat meat.

Table I. 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} or l y^{-1})	Observed minimum for the high-rate group (kg y^{-1} or l y^{-1})	Observed mean for the high-rate group (kg y^{-1} or l y^{-1})	Observed 97.5th percentile (kg y^{-1} or l y^{-1})
Child age group (6 - 15 years old)						
Green vegetables	4	4	6.5	3.2	5.0	6.4
Other vegetables	4	2	60.2	60.2	60.2	60.2
Root vegetables	2	1	10.0	10.0	10.0	9.8
Potato	6	5	39.5	16.4	28.0	39.5
Domestic fruit	6	6	8.7	4.9	6.7	8.7
Milk	6	3	365.0	311.0	329.0	358.2
Cattle meat	5	3	47.3	21.8	38.8	47.3
Pig meat	2	2	8.0	8.0	8.0	8.0
Eggs	3	2	36.4	36.4	36.4	36.4
Wild/free foods	3	1	2.0	2.0	2.0	1.9
Rabbits/hares	1	1	1.1	1.1	1.1	Not applicable
Honey	2	2	0.1	0.1	0.1	0.1
Wild fungi	2	2	0.1	0.1	0.1	0.1
Infant age group (0 - 5 years old)						
Milk	1	1	103.7	103.7	103.7	Not applicable
Cattle meat	1	1	14.6	14.6	14.6	Not applicable

6 DIRECT RADIATION PATHWAYS

6.1 Direct radiation survey area

The direct radiation survey area (see Figure 2, page 23) covered the land and waters of the Bristol Channel within 1.1 km of the Hinkley Point nuclear licensed site boundary, which delineates the external boundary of the Hinkley Point A and B nuclear sites. The direct radiation survey area was sparsely populated, and therefore to increase the number of observations, the survey area was extended from the 1 km area usually used in direct radiation surveys. The occupancy data collected from the direct radiation survey area are also applicable to inhalation and external exposure pathways arising from gaseous releases from the site.

The Hinkley Point site is located on the shore of the Bristol Channel and the northern part of the direct radiation survey area is taken up by the waters and intertidal areas of the channel. The shore is sand and stones with areas of mud, sand and rocky reefs, which can be accessed by walking from Stolford. Construction works on a temporary jetty for the Hinkley Point C site were underway during the habits survey and the coastal path had been diverted inland around the boundary of the Hinkley Point A, B and C sites. The shore in front of the Hinkley Point A and B sites was popular with anglers.

The land in the eastern half of the direct radiation survey area is agricultural and is farmed by farmers who live outside of the direct radiation survey area. The residential properties are located on the eastern and southern outer limit of the survey area.

The Hinkley Point C construction site is located adjacent to the western boundary of the Hinkley Point A and B sites. The construction site covers most of the western half of the direct radiation survey area. This area was previously farmland and there were three residential properties, one of which was occupied by Hinkley Point C site contractors at the time of the survey.

6.2 Residential activities

The residential properties within the direct radiation survey area were all located in the >0.5 – 1.1 km zone. The direct radiation area was sparsely populated with only 10 properties identified. Interviews were conducted at eight residences, five of which were located to the east of the site and three of which were located to the south.

At the time of the survey, temporary accommodation comprising 15 buildings was being built in the south-eastern part of the Hinkley Point C construction area (within the direct radiation survey area) to house approximately 500 transient workers. This is expected to be in use at the start of 2018 and will be removed before the start of the commercial operation, which is anticipated in 2025. Estimated

occupancy data for people living in the accommodation and working on the Hinkley Point C site was obtained and occupancy rates for two people have been included in the data analysis.

6.3 Leisure activities

A nature reserve was located outside of the secure nuclear site fence but within the Hinkley Point nuclear licensed boundary. The reserve was not open to the public, but a limited number of prearranged guided walks took place. Tours for members of the public were also provided around the Hinkley Point B site and the Hinkley Point C site.

Activities such as wildfowling, angling, bait digging and walking took place on the shore in front of the Hinkley Point A and B sites. Angling primarily took place from the rocky reefs. The coastal path was closed in front of Hinkley C and had been diverted inland around the boundary of the Hinkley Point A, B and C sites.

6.4 Commercial activities

The land in the eastern half of the direct radiation survey area is mostly agricultural land and farming was identified across all zones within this area. The land in the western half of the survey area is the construction site for Hinkley Point C, and at the time of the habits survey, there were approximately 2,000 workers at the construction site per day. The activities of the Hinkley Point A and B 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 45 presents indoor, outdoor and total occupancy data for adults and children. No infants were identified with occupancy in the direct radiation area. An analysis of the data by distance zones and occupancy rates is shown in Table 46. A summary of occupancy rates in the direct radiation survey area is presented in Table J (see page 55).

Table J. 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})
Within the nuclear licensed site boundary	1	-	154	154
0 - 0.25 km	5	-	209	209
>0.25 - 0.5 km	1	-	34	34
>0.5 - 1.1 km	19	8277	1469	8682

Within the nuclear licensed site boundary

Occupancy data were collected for one person spending time within the nuclear licensed site boundary who was not a Hinkley Point site employee. They spent 75% of their time in this area and 25% of their time within the 0 - 0.25 km zone.

0 - 0.25 km from the nuclear licensed site boundary

Occupancy data were collected for four individuals in the 0 - 0.25 km zone. The observations were for two anglers, one person who was wildfowling and walking, and one farmer. No indoor occupancy rates were recorded since there were no properties within this zone and the activities in this area were all undertaken outdoors. The highest outdoor and total occupancy rates were for the two anglers.

>0.25 - 0.5 km from the nuclear licensed site boundary

One person who was farming in the area was identified spending time in the >0.25 - 0.5 km zone. There were no properties in this zone so no indoor occupancy rates were recorded.

>0.5 - 1.1 km from the nuclear licensed site boundary

Occupancy data were collected for 21 people in the >0.5 - 1.1 km zone. The observations were for 16 residents, two Hinkley Point C contractors living in the temporary accommodation building and working on the site (estimated rates), one person who was farming in the area, and two people who were angling and bait digging. A resident had the highest indoor and total occupancy rates. Another resident had the highest outdoor occupancy rate.

6.6 Gamma dose rate measurements

Gamma dose rate measurements were taken indoors and outdoors at most of the properties where interviews were conducted in the Hinkley Point direct radiation survey area. 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 47 and are summarised in Table K, below.

Table K. 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 ($\mu Gy\ h^{-1}$)	Maximum gamma dose rate at 1 metre ($\mu Gy\ h^{-1}$)
Indoor measurements[a]			
Concrete	4	0.060	0.069
Stone	3	0.065	0.072
Outdoor measurements[a]			
Grass	7	0.054	0.070
Mud and stones	1	0.057 (one measurement only)	
Background measurements			
Grass	3	0.060	0.075

Notes

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

All of the measurements taken indoors and outdoors at properties in the direct radiation survey area were lower 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 69 sampling stations distributed throughout the UK (www.gov.uk). The nearest RIMNET station to Hinkley Point is at the RNLI station at Burnham-on-Sea, which is approximately 10 km away. The ambient (*i.e*. background) gamma dose rates at RNLI Burnham-on-Sea between July and September 2017, which includes the period of the habits survey, ranged from 0.070 $\mu Gy\ h^{-1}$ to 0.110 $\mu Gy\ h^{-1}$. All of the gamma dose rate measurements taken at properties during the Hinkley Point habits survey were within or below this range.

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 48. Each of the 30 combinations shown in Table 48 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 48 because they have fewer pathways and a dose assessment for them would be adequately covered by one of the 30 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 Hinkley Point 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) considered this approach to

assessing retrospective total doses (Camplin *et al*, 2005) and 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, 2017).

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 2017 survey are compared below with results from the last habits survey undertaken at Hinkley Point in 2010. The same aquatic and terrestrial survey areas were used in both surveys. The direct radiation survey area was slightly different in 2017; the western end of the survey area had moved slightly to the east because the Hinkley Point B nuclear licensed site boundary had changed since the 2010 habits 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

Activities in the aquatic survey area in 2017 were broadly similar to those in 2010. The main difference was that the hobby fisherman's set nets that were in operation in 2010 were not being fished in 2017.

The main species of fish consumed by the adult high-rate group in 2010 were bass, grey mullet, Dover sole, whiting, thornback ray, European eel and cod, and in 2017, the main species were cod and bass. The main species of crustacean consumed by the adult high-rate group in 2017 was brown shrimp, and this was the only species consumed in 2010. In 2010 and 2017, the only species of mollusc consumed was whelks. The main species of wildfowl consumed by the adult high-rate group in 2010 were mallard, pintail and wigeon, and 2017, the same species were consumed with the addition of teal. The main species of marine plants/algae consumed by the adult high-rate group in 2010 were samphire, *Porphyra umbilicalis* and sea beet, and in 2017, the main species were samphire and *Porphyra umbilicalis*.

A comparison between the 2010 and 2017 data for the consumption of aquatic foods is presented in Table L (see page 60).

Table L. Comparison between 2010 and 2017 consumption rates of aquatic food groups for adults						
	2010			2017		
Food group	**Number in high-rate group**	**Maximum consumption rate (kg y^{-1})**	**Mean consumption rate for the high-rate group (kg y^{-1})**	**Number in high-rate group**	**Maximum consumption rate (kg y^{-1})**	**Mean consumption rate for the high-rate group (kg y^{-1})**
Fish	9	23.3	14.1	12	75.6	45.1
Crustaceans	3	20.6	13.3	5	20.6	11.7
Molluscs	2	0.8	0.8	2	0.7	0.7
Wildfowl	2	16.7	11.2	4	4.8	3.8
Marine plants/algae	7	0.9	0.7	6	1.0	0.8
Salt marsh grazed sheep meat	2	5.7	5.7	Not identified during the survey		

In 2017, compared with 2010, there were increases in the mean consumption rate for the adult high-rate group for fish and marine plants/algae and there were decreases in the mean consumption rate for the adult high-rate group for crustaceans, molluscs and wildfowl. The consumption of fish increased significantly in the 2017, which was due to newly identified keen boat anglers who were consuming large quantities of fish. The decrease in the consumption of wildfowl was attributed to a wildfowler who was spending less time wildfowling in 2017 than in 2010.

In 2010, intertidal occupancy for adults was recorded over the following nine substrates: mud; mud and sand; mud, sand and stones; rock; salt marsh; sand; sand and stones; stones; boat on mud. In 2017, activities were recorded over similar substrates, except that no occupancy over salt marsh was recorded.

The following activities were undertaken by the individuals in the adult high-rate groups for occupancy over intertidal substrates:

- In 2010: attending nets, search and rescue duties, angling, dog walking, birdwatching, collecting samphire, beachcombing, tending livestock, beach warden duties, horse riding, operating a small business, playing, walking, boat maintenance, and bait digging.

- In 2017: attending nets, search and rescue duties, dog walking, collecting samphire, angling, bait digging, collecting seaweed, working on the shore, rock pooling, walking, beachcombing, birdwatching, and living on a boat.

The following activity was undertaken by the individuals in the adult high-rate groups for handling fishing gear:

- In 2010 and 2017: handling nets.

The following activities were undertaken by the individuals in the adult high-rate groups for handling sediment:

- In 2010: bait digging, fixing moorings and wildfowling.
- In 2017: bait digging.

A comparison between the 2010 and 2017 data for occupancy over intertidal substrates, handling fishing gear and handling sediment for adults is shown in Table M (below).

Table M. Comparison between 2010 and 2017 intertidal occupancy rates and handling rates of fishing gear and sediment for adults

	2010			2017		
Intertidal substrate or handling pathway	**Number in high-rate group**	**Maximum occupancy or handling rate (h y^{-1})**	**Mean occupancy or handling rate for the high-rate group (h y^{-1})**	**Number in high-rate group**	**Maximum occupancy or handling rate (h y^{-1})**	**Mean occupancy or handling rate for the high-rate group (h y^{-1})**
Mud	1	995	995	1	912	912
Mud and sand	24	216	107	23	546	238
Mud, sand and stones	5	365	356	3	365	203
Rock	2	364	326	3	326	248
Salt marsh	2	420	301	Not identified during the survey		
Sand	16	1231	688	6	2450	1723
Sand and stones	8	156	110	29	447	246
Stones	5	335	243	21	390	191
Boat on mud	1	365	365	3	2878	2615
Handling fishing gear	1	990	990	1	912	912
Handling sediment	3	106	73	2	166	135

In 2017, compared with 2010, the mean intertidal occupancy rate for the adult high-rate group increased significantly over the following substrates: mud and sand; sand; sand and stones; boat on mud. Whereas, the mean intertidal occupancy rate decreased slightly over rock; mud; mud, sand and stones. Occupancy over salt marsh was identified in 2010 but was not identified in 2017.

The significant increase in the occupancy rate over sand was due to the identification in 2017 of a newly identified person working on the shore and others who were working longer hours compared with 2010. The significant increase in the occupancy rate for boat on mud was due to changes in dredging operations at a harbour in the aquatic survey area since the 2010 habits survey, which has led to a build-up of sediment in the harbour and boats were resting on sediment for part of the tidal cycle. No specific reasons were identified for the other changes in intertidal occupancy rates.

The mean rates for the adult high-rate groups for handling fishing gear decreased slightly in 2017 compared to 2010. The mean rates for the adult high-rate groups for handling sediment increased in 2017 since more bait diggers were identified compared with 2010.

For activities taking place in the water in the aquatic survey area, the maximum adult occupancy rate decreased from 70 h y^{-1} in 2010, for a person who was swimming regularly at Brean, to 20 h y^{-1} in 2017, for two people who were kayaking at Stolford. Kayaking is classified as an 'in water' activity since it is likely to lead to the ingestion of seawater.

For activities taking place on the water in the aquatic survey area, the maximum adult occupancy rate in both years was for two people living on a boat in the survey area. This decreased from 7300 h y^{-1} in 2010 to 5800 h y^{-1} in 2017 because the boat was resting on mud for part of the tidal cycle in 2017 rather than being afloat for the whole of the tidal cycle.

The use of seaweed as a fertiliser on soil where fruit and vegetables were grown was recorded in 2010 and 2017. The use of seaweed as animal feed was not identified in either year.

8.2 Terrestrial survey area

Activities in the terrestrial survey area in 2017 were broadly similar to those in 2010. The principal types of farm produce within the area continued to be a mix of milk (from dairy cattle), beef cattle, pigs, lambs and chickens. Most of the farms produced arable crops for animal feed.

The growing of fruit and vegetables in gardens and on allotment sites, beekeeping, shooting on farmland and the collection of wild foods were identified in both surveys. The mean consumption rates for the adult high-rate groups for terrestrial food groups from the 2010 and 2017 surveys are shown in Table N (see page 63).

Table N. Comparison between 2010 and 2017 mean consumption rates for the adult high-rate groups for terrestrial food groups (kg y^{-1} and l y^{-1})		
Food group	**2010**	**2017**
Green vegetables	22.6	19.4
Other vegetables	24.8	65.3
Root vegetables	25.6	27.6
Potato	65.7	67.1
Domestic fruit	40.6	40.7
Milk	220.4	364.1
Cattle meat	44.5	68.8
Pig meat	16.4	12.3
Sheep meat	15.1	9.2
Poultry	6.3	19.6
Eggs	19.5	41.5
Wild/free foods	2.7	3.0
Rabbits/hares	2.2	1.1
Honey	1.9	1.1
Wild fungi	0.9	1.8
Venison	15.2	Not identified during the survey
Goat meat	Not identified during the survey	3.4

In 2017, compared to 2010, the mean consumption rates for the adult high-rate groups decreased in the following five food groups: green vegetables; pig meat; sheep meat; rabbits/hares; honey. The mean consumption rates for the adult high-rate groups increased in 2017 in the following food groups: other vegetables; root vegetables; potato; domestic fruit; milk; cattle meat; poultry; eggs; wild/free foods; wild fungi. The consumption of venison was identified in 2010 but not in 2017 and the consumption of goat meat was identified in 2017 but not in 2010.

The most significant increases in the mean consumption rate for the adult high-rate groups in 2017 were for other vegetables, cattle meat, poultry, eggs and milk. The increase in the consumption of poultry was due to the identification of a farming family who were consuming large quantities of chicken. The increase in the consumption of eggs was due to a family who kept numerous chickens and ducks and consumed a large number of eggs every day. The consumption of venison was recorded in 2010 but the only family that were identified consuming venison had moved away from the area by 2017. No specific reasons were identified for the other changes in consumption rates.

The consumption of groundwater by humans and livestock was identified in both 2010 and 2017. In both years, households were identified drinking borehole water and livestock were supplied with borehole water and spring water, and had access to stream and ditch water in the fields.

8.3 Direct radiation survey area

The direct radiation survey area had changed slightly since the 2010 habits survey. The western limit of the survey area had moved slightly to the east as part of the Hinkley Point B land was transferred to the Hinkley Point C site. The western half of the direct radiation survey area in 2017 was taken up by the Hinkley Point C construction site. However, this has had limited impact on activities, since this area was previously farmland and there were three residential properties. Activities identified in the direct radiation survey area in 2010 and 2017 were similar and included people residing, working and undertaking recreational activities such as angling and wildfowling.

A comparison between the 2010 and 2017 direct radiation occupancy rates for all age groups combined, by zone, is presented in Table O (below).

Table O. Comparison between 2010 and 2017 direct radiation occupancy rates for all age groups combined (h y^{-1})

	2010	**2017**
Within the nuclear licensed site boundary		
Highest indoor	-	-
Highest outdoor	234	203
Highest total	234	203
0 - 0.25 km zone		
Highest indoor	-	-
Highest outdoor	240	209
Highest total	240	209
>0.25 - 0.5 km zone		
Highest indoor	-	-
Highest outdoor	63	34
Highest total	63	34
>0.5 - 1.1 km zone		
Highest indoor	7676	8277
Highest outdoor	1750	1469
Highest total	7988	8682

The highest outdoor and total occupancy rates in the 0 – 0.25 km zone and the >0.25 – 0.5 km zone in 2010 and 2017 were for recreational activities and farming. The highest indoor, outdoor and total occupancy rates in the >0.5 – 1.1 km zone in both 2010 and 2017 were for people living in the area.

In the Hinkley Point direct radiation survey area, three sets of gamma dose rate measurements taken in 2017 can be compared with those taken at the same properties in 2010. These data are shown in Table P (see page 65).

Table P. Comparison between 2010 and 2017 gamma dose rates (μGy h^{-1})				
	Indoor		**Outdoor**	
Location	**2010**	**2017**	**2010**	**2017**
Residence 2	0.081	-	0.068	0.057
Residence 3	0.061	0.061	0.076	0.070
Residence 5	0.056	0.072	0.058	0.070

Notes
These measurements have not been adjusted for background dose rates.
The locations correspond to those in Table 47.

The gamma dose rate measurements taken at the properties were similar in both years. For the indoor measurements, one was higher in 2017 and one was the same. For the outdoor measurements, two were lower in 2017 and one was higher compared with 2010.

9 MAIN FINDINGS

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

- Discharges of liquid radioactive waste into the Bristol Channel
- 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, fishermen, anglers, people spending time on intertidal substrates, 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 335 individuals are presented in this report. All consumption rates recorded are only for foods produced, collected or caught from within the aquatic and terrestrial survey areas as defined in Section 2.3.

9.1 Aquatic survey area

The mean consumption rates for the adult high-rate groups (as defined in Section 3.4) for the separate aquatic consumption pathways for foods potentially affected by liquid discharges were:

- 45 kg y^{-1} for fish
- 12 kg y^{-1} for crustaceans
- 0.7 kg y^{-1} for molluscs
- 3.8 kg y^{-1} for wildfowl
- 0.8 kg y^{-1} for marine plants/algae

The predominant foods consumed by the people in the adult high-rate groups were:

- For fish: cod and bass
- For crustaceans: brown shrimp
- For molluscs: whelk
- For wildfowl: mallard, wigeon, pintail and teal
- For marine plants/algae: samphire and *Porphyra umbilicalis.*

Seaweed was used as a fertiliser on allotment plots where fruit and vegetables were grown. The use of seaweed as an animal feed was not identified.

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

- 910 h y^{-1} for mud
- 240 h y^{-1} for mud and sand
- 200 h y^{-1} for mud, sand and stones
- 250 h y^{-1} for rock
- 1700 h y^{-1} for sand
- 250 h y^{-1} for sand and stones
- 190 h y^{-1} for stones
- 2600 h y^{-1} for boat on mud

The mean rates for the adult high-rate groups for handling were:

- 910 h y^{-1} for handling fishing gear (nets)
- 140 h y^{-1} for handling sediment

The maximum adult occupancy rates for water based activities were:

- 20 h y^{-1} for 'in water'
- 5800 h y^{-1} for 'on water'

Individuals in the child and infant age groups were not recorded consuming aquatic foods, but were 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:

- 19 kg y^{-1} for green vegetables
- 65 kg y^{-1} for other vegetables
- 28 kg y^{-1} for root vegetables
- 67 kg y^{-1} for potato
- 41 kg y^{-1} for domestic fruit
- 360 l y^{-1} for milk
- 69 kg y^{-1} for cattle meat
- 12 kg y^{-1} for pig meat
- 9.2 kg y^{-1} for sheep meat
- 20 kg y^{-1} for poultry
- 42 kg y^{-1} for eggs
- 3.0 kg y^{-1} for wild/free foods
- 1.1 kg y^{-1} for rabbits/hares
- 1.1 kg y^{-1} for honey

- 1.8 kg y^{-1} for wild fungi
- 3.4 kg y^{-1} for goat meat

The consumption of venison was not recorded. The consumption of terrestrial foodstuffs by individuals in the child and infant age groups was also recorded.

9.3 Direct radiation survey area

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

Within the nuclear licensed site boundary

- No indoor occupancy rates were recorded
- 203 h y^{-1} for the outdoor occupancy rate
- 203 h y^{-1} for the total occupancy rate

0 - 0.25 km zone

- No indoor occupancy rates were recorded
- 210 h y^{-1} for the outdoor occupancy rate
- 210 h y^{-1} for the total occupancy rate

>0.25 - 0.5 km zone

- No indoor occupancy rates were recorded
- 34 h y^{-1} for the outdoor occupancy rate
- 34 h y^{-1} for the total occupancy rate

>0.5 - 1.1 km zone

- 8300 h y^{-1} for the indoor occupancy rate
- 1500 h y^{-1} for the outdoor occupancy rate
- 8700 h y^{-1} for the total occupancy rate

Within the nuclear licensed site boundary, the highest outdoor and total occupancy rate was for a person who was not a Hinkley Point site employee.

In the 0 - 0.25 km zone the highest outdoor and total occupancy rates were for two individuals who were angling in the area. The highest outdoor and total occupancy rate in the >0.25 - 0.5 km zone was for an individual farming their land, who lived outside the area. There were no residential properties in the 0 - 0.25 km zone or in the >0.25 - 0.5 km zone.

In the >0.5 - 1.1 km zone the highest indoor and total occupancy rates were for a resident and the highest outdoor occupancy rate was for a different resident.

9.4 The impacts on activities resulting from the construction of Hinkley Point C

The Hinkley Point C site is located adjacent to the western boundary of the Hinkley Point A and B sites. The construction site covers most of the western half of the direct radiation survey area. This area was previously farmland and there were three residential properties, one of which is currently occupied by Hinkley Point C site contractors. A temporary onsite campus was being built in the south-eastern part of the Hinkley Point C construction area (within the direct radiation survey area) to house approximately 500 workers and this is expected to be operational at the start of 2018. The temporary campus will be removed before the start of the commercial operation, which is anticipated in 2025.

At the time of the habits survey there was limited public access to the shore in front of the Hinkley Point C site due to the construction of a temporary jetty. People were using the shore in front of the Hinkley Point A and B sites for activities including angling, bait digging, wildfowling and walking. The coastal path was closed in front of Hinkley C and was diverted inland around the Hinkley Point A, B and C sites during the construction period.

A wharf at Combwich is being refurbished as part of the Hinkley Point C construction project. As a result of the construction works, some of the privately-owned boats that were moored in the area have been moved to dry dock or temporarily relocated.

Dredging is planned to take place in the summer of 2018 as part of the works to install the Hinkley Point C cooling water system. This will involve dredging mud and sediment and tunnelling to a distance of >3 km offshore. The dredged material is planned to be disposed of at Cardiff Grounds (www.edfenergy.com).

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, 2017).

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 Hinkley Point A and B

The 2017 monitoring programmes relevant to the Hinkley Point A and B sites included the samples and measurements listed below. The location names, foods and substrate classifications are taken directly from RIFE 22 (EA, FSA, FSS, NRW, NIEA and SEPA, 2017). Some of the samples and measurements taken for the monitoring programmes may be from outside the survey areas used for the 2017 Hinkley Point habits survey.

Aquatic samples

Food and environmental samples

Sample	***Location***
Cod	Stolford
Shrimps	Stolford
Limpets	Stolford
Pacific Oyster	Stolford
Seaweed	Pipeline
Sediment	Pipeline
Sediment	Stolford
Sediment	Stert Flats
Sediment	River Parrett
Sediment	River Parrett Central 1
Sediment	River Parrett Central 2

Sample	*Location*
Sediment	Burrowbridge
Sediment	Pawlett
Sediment	East Bank
Sediment	Weston-Super-Mare
Sediment	Burnham-on-Sea
Sediment	Kilve
Sediment	Helwell Bay
Sediment	Blue Anchor Bay
Seawater	Pipeline

Gamma dose rate measurements over intertidal sediments

Location	*Substrate*
Weston-Super-Mare	Sand
Weston-Super-Mare	Mud and sand
Burnham-on-Sea	Sand
Burnham-on-Sea	Mud and sand
River Parrett 1	Mud
River Parrett 1	Mud and salt marsh
River Parrett 2	Mud
River Parrett 2	Mud and salt marsh
River Parrett Burrowbridge	Mud and salt marsh
River Parrett Pawlett	Mud
River Parrett Pawlett	Mud and salt marsh
River Parrett East Bank	Mud
River Parrett East Bank	Mud and salt marsh
Stert Flats	Mud
Stolford	Mud
Hinkley Point	Mud and sand
Hinkley Point	Mud and rock
Kilve	Mud and sand
Kilve	Mud and shingle
Helwell Bay	Rock and mud
Helwell Bay	Mud and shingle
Blue Anchor Bay	Mud and sand

Terrestrial samples

Milk
Blackberries
Honey
Wheat
Grass
Freshwater from Durleigh Reservoir
Freshwater from Ashford Reservoir

10.2 Information from the 2017 Hinkley Point 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***
Cod	Fish
Brown shrimp	Crustacean
Whelk	Mollusc
Mallard	Wildfowl
Samphire	Marine plants/algae
Broccoli	Green vegetables
Tomato	Other vegetables
Onion	Root vegetables
Potato	Potato
Apple	Domestic fruit
Cow's milk	Milk
Beef	Cattle meat
Pork	Pig meat
Lamb	Sheep meat
Chicken	Poultry
Chicken egg	Eggs
Blackberry	Wild/free foods
Rabbit	Rabbits/hares
Honey	Honey
Mushroom	Wild fungi
Goat	Goat meat

Environment Agency monitoring

The current environmental monitoring programme adequately covers the Hinkley Point 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 Hinkley Point 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**)	1300[a]	95[b]	7%	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**)	20	16[b]	80%	Interviews were conducted at 8 residences out of a total of 10 permanent residences.
	Number of people working, visiting and undertaking recreational activities in the direct radiation survey area (See **(C) DIRECT RADIATION PATHWAYS**)	U	7[b]	U	Excluding employees and contractors at the nuclear licensed site and farmers tending their fields in the direct radiation area.
	Number of Itinerant workforce resident in the direct radiation survey area for the construction of Hinkley Point C (See **(C) DIRECT RADIATION PATHWAYS**)	U	2	U	Estimated occupancy data for people living in the temporary accommodation and working on the Hinkley Point C construction was obtained and rates for two people have been included.
	Number of people effected by liquid discharges (excluding those assigned to other categories above) (See **(A) AQUATIC PATHWAYS**)	U	215[b]	U	Where generalised data for groups of people were obtained, for example members of sailing clubs, only a limited number of representative individuals have been included.
	Total for aquatic, terrestrial and direct radiation survey areas	U	335[b]	U	
(A) AQUATIC PATHWAYS					
Commercial fishermen	Number of commercial fishermen fishing in the aquatic survey area	1	1	100%	
People undertaking activities in or on water (*e.g.* swimmers, boat anglers, sailors etc.)	Number of people undertaking activities in or on water in the aquatic survey area	U	64	U	Where generalised data for groups of people were obtained, for example members of sailing clubs, only a limited number of representative individuals have been included.
People using the shore (e.g. dog walkers, shore anglers, people playing, etc.)	Number of people undertaking intertidal activities in the aquatic survey area	U	179	U	
Fish consumers	Number of people consuming fish from the aquatic survey area	U	36	U	
Crustacean consumers	Number of people consuming crustaceans from the aquatic survey area	U	9	U	
Mollusc consumers	Number of people consuming molluscs from the aquatic survey area	U	2	U	

Table 1. Survey coverage continued

Group	Criteria	Estimate of complete coverage	Number for whom positive data was obtained	Coverage for positive observations	Notes
(B) TERRESTRIAL PATHWAYS					
Farmers	Number of farmers and their family members consuming food from the terrestrial survey area	74	53	72%	Interviews were conducted at 15 farms out of a total of 21 farms in the terrestrial survey area.
Allotment holders and gardeners	Number of allotment holders and gardeners and their family members consuming food from the terrestrial survey area	U	22	U	
Honey consumers	Number of people consuming honey produced in the survey area	U	14	U	Three beekeepers were interviewed.
(C) DIRECT RADIATION PATHWAYS					
Residents	Number of residents in the survey area	20	16	80%	Interviews were conducted at 8 residences out of an estimated total of 10 permanent residences.
Workers	Number of people working in the survey area	U	4	U	
Visitors (people undertaking recreational activities or visiting relatives)	Number of people visiting the survey area	U	9	U	
Itinerant workforce residing in temporary accomodation.	Number of temporary residents in the survey area	U	2	U	The observations include two estimated rates to represent the Hinkley Point C contractors living in the temporary accommodation building and working on the site.
BREAKDOWN OF AGE GROUPS FOR PEOPLE RESIDENT IN THE 5 km TERRESTRIAL SURVEY AREA					
Adult	16-year-old and over	1090[a]	281	26%	
Child	6-year-old to 15-year-old	118[a]	47	40%	
Infant	0 to 5-year-old	72[a]	7	10%	

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 goes shore angling and consumes the catch.

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, 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' consumption rates of fish from the Hinkley Point aquatic survey area (kg y^{-1})

Person ID number	Bass	Cod	Conger eel	Dover sole	European Eel	Flounder	Grey mullet	Herring	Lemon sole	Lesser spotted dogfish	Ling	Plaice	Sprat	Thornback ray	Whiting	Total
1402/2/1	**19.9**	**38.5**	**-**	**-**	**-**	**-**	**-**	**-**	**7.2**	**-**	**-**	**-**	**-**	**-**	**10.0**	**75.6**
1402/3/1	**19.9**	**38.5**	**-**	**-**	**-**	**-**	**-**	**-**	**7.2**	**-**	**-**	**-**	**-**	**-**	**10.0**	**75.6**
1402/4/1	**19.9**	**38.5**	**-**	**-**	**-**	**-**	**-**	**-**	**7.2**	**-**	**-**	**-**	**-**	**-**	**10.0**	**75.6**
1267/1/1	**2.1**	**52.4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**54.5**
1267/2/1	**2.1**	**52.4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**54.5**
1412/1/1	**1.9**	**1.9**	**-**	**9.1**	**9.1**	**-**	**1.9**	**-**	**-**	**-**	**-**	**-**	**1.9**	**9.1**	**1.9**	**36.7**
1340/1/1	**5.6**	**19.6**	**-**	**-**	**-**	**8.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**33.3**
1412/2/1	**1.3**	**1.3**	**-**	**7.7**	**7.7**	**-**	**1.3**	**-**	**-**	**-**	**-**	**-**	**1.3**	**7.7**	**1.3**	**29.5**
1358/3/1	**8.0**	**20.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**28.0**
1296/1/1	**4.3**	**22.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**26.7**
1281/1/1	**3.2**	**22.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**25.7**
1281/2/1	**3.2**	**22.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**25.7**
1403/1/1	5.9	5.9	-	-	-	-	-	-	-	5.9	-	-	-	-	5.9	23.7
1280/1/1	2.7	19.5	-	-	-	-	-	-	-	-	-	-	-	-	-	22.1
1280/2/1	2.7	19.5	-	-	-	-	-	-	-	-	-	-	-	-	-	22.1
1280/3/1	-	19.5	-	-	-	-	-	-	-	-	-	-	-	-	-	19.5
1286/1/1	-	5.9	-	-	-	-	-	-	-	-	-	-	-	5.9	5.1	16.8
1307/1/1	-	-	6.7	-	-	-	-	-	-	3.6	-	-	-	3.6	1.3	15.2
1307/2/1	-	-	6.7	-	-	-	-	-	-	3.6	-	-	-	3.6	1.3	15.2
1607/1/1	-	0.6	0.6	-	-	-	0.6	11.3	-	-	-	-	-	0.6	-	13.7
1607/2/1	-	0.6	0.6	-	-	-	0.6	11.3	-	-	-	-	-	0.6	-	13.7
1214/1/1	-	9.5	-	-	-	-	-	-	-	-	-	-	-	-	-	9.5
1214/2/1	-	9.5	-	-	-	-	-	-	-	-	-	-	-	-	-	9.5
1309/1/1	-	-	-	-	-	-	-	-	-	9.5	-	-	-	-	-	9.5
1309/2/1	-	-	-	-	-	-	-	-	-	9.5	-	-	-	-	-	9.5
1354/1/1	0.9	6.6	-	-	-	-	-	-	-	-	-	-	-	-	-	7.5
1308/1/1	-	-	-	-	-	-	-	-	-	5.4	-	-	-	-	-	5.4
1308/2/1	-	-	-	-	-	-	-	-	-	5.4	-	-	-	-	-	5.4
1297/1/1	-	1.2	-	-	-	-	-	-	-	-	0.9	-	-	1.2	1.0	4.3
1299/1/1	-	1.2	-	-	-	-	-	-	-	-	0.9	-	-	1.2	1.0	4.3
1641/1/1	1.0	1.0	-	1.0	-	-	-	-	-	-	-	1.0	-	-	-	4.0
1641/2/1	1.0	1.0	-	1.0	-	-	-	-	-	-	-	1.0	-	-	-	4.0
1322/1/1	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9

Table 3. Adults' consumption rates of fish from the Hinkley Point aquatic survey area (kg y^{-1})

Person ID number	Bass	Cod	Conger eel	Dover sole	European Eel	Flounder	Grey mullet	Herring	Lemon sole	Lesser spotted dogfish	Ling	Plaice	Sprat	Thornback ray	Whiting	Total
1412/3/1	-	0.2	-	0.2	0.2	-	0.4	-	-	-	-	-	0.4	-	0.2	1.7
1412/4/1	-	0.2	-	0.2	0.2	-	0.4	-	-	-	-	-	0.4	-	0.2	1.7
1412/6/1	-	0.2	-	0.2	0.2	-	0.4	-	-	-	-	-	0.4	-	0.2	1.7

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of fish for adults based on the 12 high-rate consumers is 45.1 kg y^{-1}

The observed 97.5th percentile rate based on 36 observations is 75.6 kg y^{-1}

Table 4. Adults' consumption rates of crustaceans from the Hinkley Point aquatic survey area (kg y^{-1})

Person ID number	Brown shrimp	Common prawn	Total
1412/1/1	**20.6**	**-**	**20.6**
1412/2/1	**10.4**	**-**	**10.4**
1412/3/1	**9.2**	**-**	**9.2**
1412/4/1	**9.2**	**-**	**9.2**
1412/6/1	**9.2**	**-**	**9.2**
1641/1/1	-	1.2	1.2
1641/2/1	-	1.2	1.2
1607/1/1	0.7	-	0.7
1607/2/1	0.7	-	0.7

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of crustaceans for adults based on the 5 high-rate consumers is 11.7 kg y^{-1}

The observed 97.5th percentile rate based on 9 observations is 18.6 kg y^{-1}

Table 5. Adults' consumption rates of molluscs from the Hinkley Point aquatic survey area (kg y^{-1})

Person ID number	Whelk
1412/1/1	**0.7**
1412/3/1	**0.7**

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of molluscs for adults based on the 2 high-rate consumers is 0.7 kg y^{-1}

The observed 97.5th percentile rate based on 2 observations is 0.7 kg y^{-1}

Table 6. Adults' consumption rates of wildfowl from the Hinkley Point aquatic survey area (kg y $^{-1}$)

Person ID number	Mallard	Pintail	Teal	Wigeon	Total
1607/1/1	**1.6**	**1.2**	**0.6**	**1.4**	**4.8**
1607/2/1	**1.6**	**1.2**	**0.6**	**1.4**	**4.8**
1268/1/1	**2.7**	**-**	**-**	**-**	**2.7**
1268/2/1	**2.7**	**-**	**-**	**-**	**2.7**
1232/1/1	1.3	-	-	-	1.3
1412/1/1	1.3	-	-	-	1.3
1412/2/1	1.3	-	-	-	1.3

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of wildfowl for adults based on the 4 high-rate consumers is 3.8 kg y^{-1}

The observed 97.5th percentile rate based on 7 observations is 4.8 kg y^{-1}

Table 7. Adults' consumption rates of marine plants/algae from the Hinkley Point aquatic survey area (kg y $^{-1}$)

Person ID number	*Porphyra umbilicalis*	Samphire	Sea lettuce	Total
1339/1/1	**-**	**1.0**	**-**	**1.0**
1339/3/1	**-**	**1.0**	**-**	**1.0**
1339/4/1	**-**	**1.0**	**-**	**1.0**
1412/1/1	**0.7**	**-**	**0.2**	**0.9**
1412/3/1	**0.7**	**-**	**-**	**0.7**
1268/2/1	**-**	**0.5**	**-**	**0.5**
1607/1/1	-	0.3	-	0.3
1607/2/1	-	0.3	-	0.3

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of marine plants/algae for adults based on the 6 high-rate consumers is 0.8 kg y^{-1}

The observed 97.5th percentile rate based on 8 observations is 1.0 kg y^{-1}

Table 8. Adults' consumption rates of vegetables and domestic fruit grown on land where seaweed has been used as a fertiliser (kg y $^{-1}$)

Green vegetables

Person ID number	Asparagus	Broccoli	Cabbage	Cauliflower	Courgette	Cucumber	Kale	Lettuce	Spinach	Total
1368/1/1	-	3.4	-	1.7	9.4	0.6	1.9	1.9	4.8	23.7
1368/2/1	-	3.4	-	1.7	9.4	0.6	1.9	1.9	4.8	23.7
1406/1/1	5.9	4.8	-	4.1	3.7	-	-	0.6	-	19.0
1406/2/1	5.9	4.8	-	4.1	3.7	-	-	0.6	-	19.0
1405/1/1	0.8	1.5	1.2	-	-	-	-	0.2	-	3.8
1405/2/1	0.8	1.5	1.2	-	-	-	-	0.2	-	3.8

Other vegetables

Person ID number	Aubergine	Broad bean	French bean	Pea	Pepper	Runner bean	Squash	Sweetcorn	Tomato	Total
1406/1/1	4.1	7.3	3.2	1.8	8.8	-	2.7	1.8	20.7	50.5
1406/2/1	4.1	7.3	3.2	1.8	8.8	-	2.7	1.8	20.7	50.5
1407/1/1	-	-	-	-	-	13.3	-	-	7.2	20.5
1368/1/1	-	-	-	6.8	-	2.0	-	2.1	0.4	11.2
1368/2/1	-	-	-	6.8	-	2.0	-	2.1	0.4	11.2
1405/1/1	-	-	0.1	-	-	8.2	-	-	0.1	8.4
1405/2/1	-	-	0.1	-	-	8.2	-	-	0.1	8.4

Root vegetables

Person ID number	Beetroot	Carrot	Celeriac	Fennel	Garlic	Onion	Parsnip	Total
1406/1/1	-	8.1	0.8	0.1	1.0	14.4	-	24.4
1406/2/1	-	8.1	0.8	0.1	1.0	14.4	-	24.4
1405/1/1	0.9	0.9	-	-	-	0.4	0.7	2.9
1405/2/1	0.9	0.9	-	-	-	0.4	0.7	2.9

Table 8. Adults' consumption rates of vegetables and domestic fruit grown on land where seaweed has been used as a fertiliser (kg y $^{-1}$)

Potato

Person ID number	Potato
1406/1/1	22.8
1406/2/1	22.8

Domestic fruit

Person ID number	Apple	Fig	Loganberry	Peach	Pear	Plum	Raspberry	Redcurrant	Rhubarb	Strawberry	Total
1406/1/1	5.7	1.1	1.1	0.7	20.0	1.5	8.1	4.5	0.9	14.3	58.0
1406/2/1	5.7	1.1	1.1	0.7	20.0	1.5	8.1	4.5	0.9	14.3	58.0
1405/1/1	20.0	-	-	-	22.7	-	0.01	-	3.5	-	46.1
1405/2/1	20.0	-	-	-	22.7	-	0.01	-	3.5	-	46.1
1368/1/1	7.5	-	-	-	-	-	1.9	-	0.9	8.6	18.8
1368/2/1	7.5	-	-	-	-	-	1.9	-	0.9	8.6	18.8
1407/1/1	3.0	-	-	-	2.0	5.0	0.9	-	-	-	10.9

Notes

These data are presented for use in studies of the potential dose arising from the possible transfer onto the land of radionuclides originating from liquid discharges made into the sea. However, these foods were grown in the terrestrial survey area and the primary reason for investigating them was to gain information about foods potentially subject to gaseous discharges. Therefore, they are also included in the terrestrial food tables presented later in this report, and, in order to avoid double accounting in assessments of total dose, are entered only once in the Annexes, where they are classified as terrestrial foods.

Table 9. Adults' intertidal occupancy rates in the Hinkley Point aquatic survey area (h y $^{-1}$)

Person ID number	Location	Activity	Mud	Mud and sand	Mud, sand and stones	Rock	Sand	Sand and stones	Stones	Boat on mud
1412/3/1	**Bridgwater Bay**	**Attending nets**	**912**	-	-	-	-	-	-	-
	Bridgwater Bay	Collecting seaweed	-	-	-	-	-	-	10	-
1638/1/1	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/2	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
16381/3	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/4	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/5	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/6	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/7	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/8	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/9	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/10	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/11	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/12	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/13	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/14	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/15	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/16	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/17	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/18	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-

Table 9. Adults' intertidal occupancy rates in the Hinkley Point aquatic survey area (h y $^{-1}$)

Person ID number	Location	Activity	Mud	Mud and sand	Mud, sand and stones	Rock	Sand	Sand and stones	Stones	Boat on mud
1638/1/19	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1638/1/20	**Stolford to Brean and the River Parrett**	**Search and rescue duties**	212	**212**	-	-	-	-	-	-
1407/1/1	**Stolford**	**Dog walking**	-	**546**	-	-	-	-	-	-
1339/1/1	**Stert Flats**	**Dog walking**	-	**367**	-	-	-	-	-	-
	Stert Flats	**Collecting samphire**	-		-	-	-	-	-	-
1322/1/1	**Burnham-on-Sea**	**Angling**	-	**313**	-	-	-	-	-	-
	Burnham-on-Sea	**Bait digging**	-		-	-	-	-	-	-
1354/1/1	Stolford, Burnham-on-Sea and Hinkley Point	Bait digging	-	104	-	-	-	-	-	-
	Stolford	**Angling**	-	-	-	-	-	-	**390**	-
1210/1/1	Stert Flats	Dog walking	-	104	-	-	-	-	-	-
1210/2/1	Stert Flats	Dog walking	-	104	-	-	-	-	-	-
1330/1/1	Burnham-on-Sea	Playing	-	72	-	-	-	-	-	-
1330/2/1	Burnham-on-Sea	Playing	-	72	-	-	-	-	-	-
1368/1/1	Stolford	Walking	-	58	-	-	-	-	-	-
1368/2/1	Stolford	Walking	-	58	-	-	-	-	-	-
1288/1/1	Blue Anchor	Bait digging	-	52	-	-	-	-	-	-
	Blue Anchor	Bait digging	-	-	-	-	393	-	-	-
	Blue Anchor	Angling	-	-	-	-		-	-	-
	Blue Anchor	Walking	-	-	-	-	-	139	-	-
1339/2/1	Stert Flats	Walking	-	52	-	-	-	-	-	-
1607/1/1	Stert Flats	Walking	-	22	-	-	-	-	-	-
	Stert Flats	Collecting samphire	-		-	-	-	-	-	-
	Hinkley Point	Wildfowling	-	-	51	-	-	-	-	-
	Hinkley Point	Walking	-	-		-	-	-	-	-
1641/1/1	Hinkley Point, Lilstock, Kilve and Burnham-on-Sea	Bait digging	-	20	-	-	-	-	-	-
	Hinkley Point	Angling	-	-	-	25	-	-	-	-
	Burnham-on-Sea	Angling	-	-	-	-	25	-	-	-
	Kilve and Lilstock	Angling	-	-	-	-	-	-	50	-
	Combwich	Boat maintenance	-	-	-	-	-	-	-	365

Table 9. Adults' intertidal occupancy rates in the Hinkley Point aquatic survey area (h y $^{-1}$)

Person ID number	Location	Activity	Mud	Mud and sand	Mud, sand and stones	Rock	Sand	Sand and stones	Stones	Boat on mud
1641/2/1	Hinkley Point, Lilstock, Kilve and Burnham-on-Sea	Bait digging	-	20	-	-	-	-	-	-
	Hinkley Point	Angling	-	-	-	25	-	-	-	-
	Burnham-on-Sea	Angling	-	-	-	-	25	-	-	-
	Kilve and Lilstock	Angling	-	-	-	-	-	-	50	-
	Combwich	Boat maintenance	-	-	-	-	-	-	-	209
1406/1/1	Stolford	Collecting seaweed	-	15	-	-	-	-	-	-
1406/2/1	Stolford	Collecting Seaweed	-	15	-	-	-	-	-	-
1223/1/1	Stert Flats	Walking	-	4	-	-	-	-	-	-
	Stolford	Walking	-	-	4	-	-	-	-	-
	Kilve	Walking	-	-	-	-	-	-	4	-
1268/1/1	Stert Flats	Collecting samphire	-	1	-	-	-	-	-	-
	Stolford	**Dog walking**	-	-	-	-	-	-	**182**	-
1334/1/1	**Hinkley Point and Stolford**	**Dog walking**	-	-	**365**	-	-	-	-	-
1405/1/1	**Stolford and Shurton Bars**	**Dog walking**	-	-	**123**	-	-	-	-	-
	Stolford and Shurton Bars	**Collecting seaweed**	-	-		-	-	-	-	-
1405/2/1	**Stolford and Shurton Bars**	**Dog walking**	-	-	**123**	-	-	-	-	-
	Stolford and Shurton Bars	**Collecting seaweed**	-	-		-	-	-	-	-
1357/1/1	Stolford	Dog walking	-	-	70	-	-	-	-	-
	Lilstock and Shurton Bars	**Dog walking**	-	-	-	-	-	-	**139**	-
1357/2/1	Stolford	Dog walking	-	-	70	-	-	-	-	-
	Lilstock and Shurton Bars	**Dog walking**	-	-	-	-	-	-	**139**	-
1358/1/1	Hinkley Point	Angling	-	-	26	-	-	-	-	-
	Shurton Bars	Angling	-	-	-	26	-	-	-	-
	Brean, Brean Down, Burnham-on-Sea and Berrow	Angling	-	-	-	-	104	-	-	-
	St Audrie's and Blue Anchor	Angling	-	-	-	-	-	52	-	-
	Stolford, Lilstock, Kilve and Doniford	Angling	-	-	-	-	-	-	104	-
1358/2/1	Hinkley Point	Angling	-	-	26	-	-	-	-	-
	Shurton Bars	Angling	-	-	-	26	-	-	-	-
	Brean, Brean Down, Burnham-on-Sea and Berrow	Angling	-	-	-	-	104	-	-	-
	St Audrie's and Blue Anchor	Angling	-	-	-	-	-	52	-	-
	Stolford, Lilstock, Kilve and Doniford	Angling	-	-	-	-	-	-	104	-
1267/1/1	**Hinkley Point**	**Angling**	-	-	-	**326**	-	-	-	-

Table 9. Adults' intertidal occupancy rates in the Hinkley Point aquatic survey area (h y^{-1})

Person ID number	Location	Activity	Mud	Mud and sand	Mud, sand and stones	Rock	Sand	Sand and stones	Stones	Boat on mud
1207/1/1	**Hinkley Point and Shurton Bars**	**Angling**	-	-	-	**209**	-	-	-	-
	Brean Down	Angling	-	-	-	-	104	-	-	-
	Kilve and Lilstock	**Angling**	-	-	-	-	-	-	**209**	-
1207/2/1	**Hinkley Point and Shurton Bars**	**Angling**	-	-	-	**209**	-	-	-	-
	Brean Down	Angling	-	-	-	-	104	-	-	-
	Kilve and Lilstock	**Angling**	-	-	-	-	-	-	**209**	-
1280/4/1	Watchet	Angling	-	-	-	94	-	-	-	-
	Blue Anchor and Doniford	**Angling**	-	-	-	-	-	**187**	-	-
	Lilstock and Kilve	**Angling**	-	-	-	-	-	-	**187**	-
1280/4/2	Watchet	Angling	-	-	-	94	-	-	-	-
	Blue Anchor and Doniford	**Angling**	-	-	-	-	-	**187**	-	-
	Lilstock and Kilve	**Angling**	-	-	-	-	-	-	**187**	-
1280/4/3	Watchet	Angling	-	-	-	94	-	-	-	-
	Blue Anchor and Doniford	**Angling**	-	-	-	-	-	**187**	-	-
	Lilstock and Kilve	**Angling**	-	-	-	-	-	-	**187**	-
1280/4/4	Watchet	Angling	-	-	-	94	-	-	-	-
	Blue Anchor and Doniford	**Angling**	-	-	-	-	-	**187**	-	-
	Lilstock and Kilve	**Angling**	-	-	-	-	-	-	**187**	-
1280/4/5	Watchet	Angling	-	-	-	94	-	-	-	-
	Blue Anchor and Doniford	**Angling**	-	-	-	-	-	**187**	-	-
	Lilstock and Kilve	**Angling**	-	-	-	-	-	-	**187**	-
1280/1/1	Watchet	Angling	-	-	-	70	-	-	-	-
	Blue Anchor and Doniford	Angling	-	-	-	-	-	139	-	-
	Lilstock and Kilve	**Angling**	-	-	-	-	-	-	**139**	-
1280/2/1	Watchet	Angling	-	-	-	70	-	-	-	-
	Blue Anchor and Doniford	Angling	-	-	-	-	-	139	-	-
	Lilstock and Kilve	**Angling**	-	-	-	-	-	-	**139**	-
1290/1/1	Blue Anchor	Rock pooling	-	-	-	12	-	-	-	-
		Playing	-	-	-	-	48	-	-	-
1290/2/1	Blue Anchor	Rock pooling	-	-	-	12	-	-	-	-
		Playing	-	-	-	-	48	-	-	-
1344/1/1	**Brean**	**Working on the shore**	-	-	-	-	**2450**	-	-	-
1414/1/1	**Brean**	**Working on the shore**	-	-	-	-	**2083**	-	-	-
1414/2/1	**Brean**	**Working on the shore**	-	-	-	-	**2083**	-	-	-
1313/1/1	**Brean**	**Working on the shore**	-	-	-	-	**1284**	-	-	-
1313/2/1	**Brean**	**Working on the shore**	-	-	-	-	**1284**	-	-	-
1215/1/1	**Berrow**	**Working on the shore**	-	-	-	-	**1152**	-	-	-

Table 9. Adults' intertidal occupancy rates in the Hinkley Point aquatic survey area (h y $^{-1}$)

Person ID number	Location	Activity	Mud	Mud and sand	Mud, sand and stones	Rock	Sand	Sand and stones	Stones	Boat on mud
1324/1/1	Berrow	Dog walking	-	-	-	-	704	-	-	-
1402/2/1	Burnham-on-Sea	Angling	-	-	-	-	700	-	-	-
1316/1/1	Brean Down and Burnham-on-Sea	Walking	-	-	-	-	469	-	-	-
1316/2/1	Brean Down and Burnham-on-Sea	Walking	-	-	-	-	469	-	-	-
1318/1/1	Berrow and Brean	Dog walking	-	-	-	-	469	-	-	-
1236/1/1	Burnham-on-Sea	Working on the shore	-	-	-	-	425	-	-	-
1311/1/1	Brean	Working on the shore	-	-	-	-	420	-	-	-
1274/1/1	Blue Anchor	Dog walking	-	-	-	-	365	-	-	-
1325/1/1	Berrow	Dog walking	-	-	-	-	365	-	-	-
1289/1/1	Blue Anchor	Dog walking	-	-	-	-	303	-	-	-
1289/2/1	Blue Anchor	Dog walking	-	-	-	-	303	-	-	-
1292/1/1	Blue Anchor, Doniford and Brean	Angling	-	-	-	-	237	-	-	-
	Kilve and Stolford	**Angling**	-	-	-	-	-	-	**158**	-
1292/2/1	Blue Anchor, Doniford and Brean	Angling	-	-	-	-	237	-	-	-
	Kilve and Stolford	**Angling**	-	-	-	-	-	-	**158**	-
1238/1/1	Brean and Burnham-on-Sea	Angling	-	-	-	-	233	-	-	-
	Stolford	Angling	-	-	-	-	-	-	116	-
1219/1/1	Berrow	Walking	-	-	-	-	209	-	-	-
1219/2/1	Berrow	Walking	-	-	-	-	209	-	-	-
1403/1/1	Burnham-on-Sea	Angling	-	-	-	-	209	-	-	-
1323/1/1	Brean	Dog walking	-	-	-	-	164	-	-	-
1305/1/1	**Doniford**	Playing	-	-	-	-	168	-	-	-
		Rock pooling	-	-	-	-	-	**168**	-	-
1305/2/1	**Doniford**	Playing	-	-	-	-	168	-	-	-
		Rock pooling	-	-	-	-	-	**168**	-	-
1273/1/1	Blue Anchor	Playing	-	-	-	-	144	-	-	-
		Rock pooling	-	-	-	-		-	-	-
1273/2/1	Blue Anchor	Playing	-	-	-	-	144	-	-	-
		Rock pooling	-	-	-	-		-	-	-
1288/2/1	Blue Anchor	Walking	-	-	-	-	-	139	-	-
1281/1/1	Blue Anchor	Angling	-	-	-	-	137	-	-	-
	Doniford	Angling	-	-	-	-	-	137	-	-
	Kilve and Lilstock	**Angling**	-	-	-	-	-	-	**273**	-
1281/2/1	Blue Anchor	Angling	-	-	-	-	137	-	-	-
	Doniford	Angling	-	-	-	-	-	137	-	-
	Kilve and Lilstock	**Angling**	-	-	-	-	-	-	**273**	-
1340/1/1	Brean	Angling	-	-	-	-	129	-	-	-
		Bait digging	-	-	-	-		-	-	-

Table 9. Adults' intertidal occupancy rates in the Hinkley Point aquatic survey area (h y $^{-1}$)

Person ID number	Location	Activity	Mud	Mud and sand	Mud, sand and stones	Rock	Sand	Sand and stones	Stones	Boat on mud
1312/1/1	Brean	Dog walking	-	-	-	-	118	-	-	-
1292/3/1	Blue Anchor and Brean	Angling	-	-	-	-	115	-	-	-
	Doniford	Angling	-	-	-	-	-	57	-	-
	Kilve and Stolford	Angling	-	-	-	-	-	-	115	-
1292/3/2	Blue Anchor and Brean	Angling	-	-	-	-	115	-	-	-
	Doniford	Angling	-	-	-	-	-	57	-	-
	Kilve and Stolford	Angling	-	-	-	-	-	-	115	-
1292/3/3	Blue Anchor and Brean	Angling	-	-	-	-	115	-	-	-
	Doniford	Angling	-	-	-	-	-	57	-	-
	Kilve and Stolford	Angling	-	-	-	-	-	-	115	-
1300/1/1	Blue Anchor	Walking	-	-	-	-	104	-	-	-
1300/2/1	Blue Anchor	Walking	-	-	-	-	104	-	-	-
1300/4/1	Blue Anchor	Walking	-	-	-	-	104	-	-	-
1300/5/1	Blue Anchor	Walking	-	-	-	-	104	-	-	-
1304/1/1	St Audrie's	Angling	-	-	-	-	90	-	-	-
	Doniford and Blue Anchor	**Angling**	-	-	-	-	-	**272**	-	-
		Walking	-	-	-	-	-		-	-
1214/1/1	Brean Down	Angling	-	-	-	-	78	-	-	-
	Blue Anchor	Angling	-	-	-	-	-	78	-	-
	Stolford, Kilve and Lilstock	**Angling**	-	-	-	-	-	-	**182**	-
1214/2/1	Brean Down	Angling	-	-	-	-	78	-	-	-
	Blue Anchor	Angling	-	-	-	-	-	78	-	-
	Stolford, Kilve and Lilstock	**Angling**	-	-	-	-	-	-	**182**	-
1301/1/1	Blue Anchor	Playing	-	-	-	-	63	-	-	-
1301/2/1	Blue Anchor	Playing	-	-	-	-	63	-	-	-
1211/1/1	Berrow	Dog walking	-	-	-	-	18	-	-	-
1211/2/1	Berrow	Dog walking	-	-	-	-	18	-	-	-
1317/1/1	**Berrow**	**Working on the shore**	-	-	-	-	-	**447**	-	-
1317/2/1	**Berrow**	**Working on the shore**	-	-	-	-	-	**447**	-	-
1278/1/1	**Doniford**	**Dog walking**	-	-	-	-	-	**365**	-	-
1303/1/1	**Doniford**	**Dog walking**	-	-	-	-	-	**365**	-	-
1296/1/1	**Blue Anchor and Doniford**	**Angling**	-	-	-	-	-	**313**	-	-
	Kilve	**Angling**	-	-	-	-	-	-	**156**	-
1295/1/1	**Blue Anchor**	**Angling**	-	-	-	-	-	**288**	-	-
1284/1/1	**Watchet**	**Dog walking**	-	-	-	-	-	**287**	-	-
1277/1/1	**Doniford**	**Dog walking**	-	-	-	-	-	**274**	-	-
1277/2/1	**Doniford**	**Dog walking**	-	-	-	-	-	**274**	-	-

Table 9. Adults' intertidal occupancy rates in the Hinkley Point aquatic survey area (h y $^{-1}$)

Person ID number	Location	Activity	Mud	Mud and sand	Mud, sand and stones	Rock	Sand	Sand and stones	Stones	Boat on mud
1272/1/1	**Blue Anchor**	**Dog walking**	-	-	-	-	-	**262**	-	-
1272/2/1	**Blue Anchor**	**Dog walking**	-	-	-	-	-	**262**	-	-
1402/1/1	**Within the survey area**	**Angling**	-	-	-	-	-	**200**	-	-
1402/1/2	**Within the survey area**	**Angling**	-	-	-	-	-	**200**	-	-
1402/1/3	**Within the survey area**	**Angling**	-	-	-	-	-	**200**	-	-
1402/1/4	**Within the survey area**	**Angling**	-	-	-	-	-	**200**	-	-
1402/1/5	**Within the survey area**	**Angling**	-	-	-	-	-	**200**	-	-
1402/1/6	**Within the survey area**	**Angling**	-	-	-	-	-	**200**	-	-
1402/1/7	**Within the survey area**	**Angling**	-	-	-	-	-	**200**	-	-
1402/1/8	**Within the survey area**	**Angling**	-	-	-	-	-	**200**	-	-
1402/1/9	**Within the survey area**	**Angling**	-	-	-	-	-	**200**	-	-
1402/1/10	**Within the survey area**	**Angling**	-	-	-	-	-	**200**	-	-
1302/1/1	Doniford	Walking	-	-	-	-	-	104	-	-
1302/2/1	Doniford	Walking	-	-	-	-	-	104	-	-
1317/3/1	Berrow	Working on the shore	-	-	-	-	-	97	-	-
1380/1/1	Watchet	Walking	-	-	-	-	-	69	-	-
		Beachcombing	-	-	-	-	-		-	-
		Birdwatching	-	-	-	-	-		-	-
	Kilve and Stolford	**Walking**	-	-	-	-	-	-	**138**	-
		Beachcombing	-	-	-	-	-	-		-
		Birdwatching	-	-	-	-	-	-		-
1380/2/1	Watchet	Walking	-	-	-	-	-	43	-	-
		Beachcombing	-	-	-	-	-		-	-
		Birdwatching	-	-	-	-	-		-	-
	Kilve and Stolford	Walking	-	-	-	-	-	-	87	-
	Stolford and Kilve	Beachcombing	-	-	-	-	-	-		-
	Kilve and Stolford	Birdwatching	-	-	-	-	-	-		-
1411/1/1	Kilve	Rock pooling	-	-	-	-	-	36	-	-
		Beachcombing	-	-	-	-	-	-	36	-
1280/3/1	Blue Anchor	Bait digging	-	-	-	-	-	24	-	-
1308/1/1	Blue Anchor	Bait digging	-	-	-	-	-	24	-	-
1308/2/1	Blue Anchor	Bait digging	-	-	-	-	-	24	-	-
1333/1/1	Stolford	Walking	-	-	-	-	-	-	65	-
1333/2/1		Walking	-	-	-	-	-	-	65	-
1293/1/1	Lilstock	Angling	-	-	-	-	-	-	50	-
1225/1/1	Lilstock and Kilve	Walking	-	-	-	-	-	-	36	-
1369/1/1	Lilstock and Stolford	Dog walking	-	-	-	-	-	-	18	-
1369/2/1	Lilstock and Stolford	Dog walking	-	-	-	-	-	-	18	-

Table 9. Adults' intertidal occupancy rates in the Hinkley Point aquatic survey area (h y^{-1})

Person ID number	Location	Activity	Mud	Mud and sand	Mud, sand and stones	Rock	Sand	Sand and stones	Stones	Boat on mud
1341/1/1	Stolford	Dog walking	-	-	-	-	-	-	15	-
		Playing	-	-	-	-	-	-		-
1341/2/1	Stolford	Playing	-	-	-	-	-	-	12	-
1283/1/1	Kilve	Beachcombing	-	-	-	-	-	-	8	-
1283/2/1	Kilve	Beachcombing	-	-	-	-	-	-	8	-
1554/1/1	**In the survey area**	**Living on a boat**	-	-	-	-	-	-	-	**2878**
1554/2/1	**In the survey area**	**Living on a boat**	-	-	-	-	-	-	-	**2878**
1553/1/1	**In the survey area**	**Living on a boat**	-	-	-	-	-	-	-	**2088**
1413/1/1	Burnham-on-Sea	Boat maintenance	-	-	-	-	-	-	-	639
1640/2/1	Watchet	Boat maintenance	-	-	-	-	-	-	-	40
1640/2/2	Watchet	Boat maintenance	-	-	-	-	-	-	-	40
1640/2/3	Watchet	Boat maintenance	-	-	-	-	-	-	-	40

Notes

Emboldened observations are the high-rate individuals

The mean intertidal occupancy rate over mud for adults based on 1 high-rate observation is 912 h y^{-1}

The observed 97.5th percentile rate based on 21 observations is 562 h y^{-1}

The mean intertidal occupancy rate over mud and sand for adults based on 23 high-rate observations is 238 h y^{-1}

The observed 97.5th percentile rate based on 39 observations is 376 h y^{-1}

The mean intertidal occupancy rate over mud, sand and stones for adults based on 3 high-rate observations is 203 h y^{-1}

The observed 97.5th percentile rate based on 9 observations is 317 h y^{-1}

The mean intertidal occupancy rate over rock for adults based on 3 high-rate observations is 248 h y^{-1}

The observed 97.5th percentile rate based on 16 observations is 282 h y^{-1}

The mean intertidal occupancy rate over sand for adults based on 6 high-rate observations is 1723 h y^{-1}

The observed 97.5th percentile rate based on 55 observations is 2083 h y^{-1}

The mean intertidal occupancy rate over sand and stones for adults based on 29 high-rate observations is 246 h y^{-1}

The observed 97.5th percentile rate based on 51 observations is 426 h y^{-1}

The mean intertidal occupancy rate over stones for adults based on 21 high-rate observations is 191 h y^{-1}

The observed 97.5th percentile rate based on 43 observations is 273 h y^{-1}

The mean intertidal occupancy rate over boat on mud for adults based on 3 high-rate observations is 2615 h y^{-1}

The observed 97.5th percentile rate based on 9 observations is 2878 h y^{-1}

Table 10. Children's and infants' intertidal occupancy rates in the Hinkley Point aquatic survey area (h y^{-1})

Child age group (6 - 15 years old)

Person ID number	Age	Location	Activity	Mud and sand	Mud, sand and stones	Rock	Sand	Sand and stones	Stones
1210/4/1	**8**	**Stert Flats**	**Dog walking**	**104**	-	-	-	-	-
1330/3/1	**7**	**Burnham-on-Sea**	**Playing**	**72**	-	-	-	-	-
1357/3/1	**10**	**Stolford**	**Dog walking**	-	**70**	-	-	-	-
		Lilstock and Shurton Bars	**Dog walking**	-	-	-	-	-	**139**
1290/3/1	**6**	**Blue Anchor**	**Rock pooling**	-	-	**12**	-	-	-
			Playing	-	-	-	48	-	-
1313/3/1	**15**	**Brean**	**Working on the shore**	-	-	-	**295**	-	-
1313/4/1	**13**	**Brean**	**Working on the shore**	-	-	-	**295**	-	-
1313/5/1	**13**	**Brean**	**Working on the shore**	-	-	-	**295**	-	-
1305/3/1	**10**	**Doniford**	**Playing**	-	-	-	**168**	-	-
			Rock pooling	-	-	-	-	**168**	-
1305/4/1	**7**	**Doniford**	**Playing**	-	-	-	**168**	-	-
			Rock pooling	-	-	-	-	**168**	-
1273/3/1	**7**	**Blue Anchor**	**Playing**	-	-	-	**144**	-	-
			Rock pooling	-	-	-		-	-
1300/3/1	**9**	**Blue Anchor**	**Walking**	-	-	-	**104**	-	-
1301/3/1	6	Blue Anchor	Playing	-	-	-	63	-	-
1301/4/1	8	Blue Anchor	Playing	-	-	-	63	-	-
1411/3/1	8	Kilve	Rock pooling	-	-	-	-	36	-
			Beachcombing	-	-	-	-	-	36
1411/4/1	6	Kilve	Rock pooling	-	-	-		36	-
			Beachcombing	-	-	-	-	-	36
1225/2/1	9	Lilstock and Kilve	Walking	-	-	-	-	-	36
1341/3/1	9	Stolford	Playing	-	-	-	-	-	12
1341/4/1	6	Stolford	Playing	-	-	-	-	-	12
1283/3/1	10	Kilve	Beachcombing	-	-	-	-	-	8
1283/4/1	6	Kilve	Beachcombing	-	-	-	-	-	8

Notes

Emboldened observations are the high-rate individuals

The mean intertidal occupancy rate over mud and sand for the child age group based on 2 high-rate observations is 88 h y^{-1}

The observed 97.5th percentile rate based on 2 observations is 103 h y^{-1}

The mean intertidal occupancy rate over mud, sand and stones for the child age group based on 1 high-rate observation is 70 h y^{-1}

The observed 97.5th percentile is not applicable for 1 observation

The mean intertidal occupancy rate over rock for the child age group based on 1 high-rate observation is 12 h y^{-1}

The observed 97.5th percentile is not applicable for 1 observation

The mean intertidal occupancy rate over sand for the child age group based on 7 high-rate observations is 210 h y^{-1}

The observed 97.5th percentile rate based on 10 observations is 295 h y^{-1}

The mean intertidal occupancy rate over sand and stones for the child age group based on 2 high-rate observations is 168 h y^{-1}

The observed 97.5th percentile rate based on 4 observations is 168 h y^{-1}

The mean intertidal occupancy rate over stones for the child age group based on 1 high-rate observations is 139 h y^{-1}

The observed 97.5th percentile rate based on 8 observations is 121 h y^{-1}

Table 10. Children's and infants' intertidal occupancy rates in the Hinkley Point aquatic survey area (h y^{-1})

Infant age group (0 - 5 years old)

Person ID number	Age	Location	Activity	Mud and sand	Mud, sand and stones	Rock	Sand	Stones
1210/3/1	**5**	**Stert Flats**	**Dog walking**	**104**	-	-	-	-
1330/4/1	**1**	**Burnham-on-Sea**	**Playing**	**72**	-	-	-	-
1223/2/1	3	Stert Flats	Walking	4	-	-	-	-
	3	**Stolford**	**Walking**	-	**4**	-	-	-
	3	**Kilve**		-	-	-	-	**4**
1290/4/1	**4**	**Blue Anchor**	**Rock pooling**	-	-	**12**	-	-
	4		**Playing**	-	-	-	**48**	-
1273/4/1	**5**	**Blue Anchor**	**Playing**	-	-	-	**144**	-
	5		**Rock pooling**	-	-	-		-
1341/5/1	**5**	**Stolford**	**Playing**	-	-	-	-	**12**

Notes

Emboldened observations are the high-rate individuals

The mean intertidal occupancy rate over mud and sand for the infant age group based on 2 high-rate observations is 88 h y^{-1}

The observed 97.5th percentile rate based on 3 observations is 103 h y^{-1}

The mean intertidal occupancy rate over mud, sand and stones for the infant age group based on 1 high-rate observation is 4 h y^{-1}

The observed 97.5th percentile is not applicable for 1 observation

The mean intertidal occupancy rate over rock for the infant age group based on 1 high-rate observation is 12 h y^{-1}

The observed 97.5th percentile is not applicable for 1 observation

The mean intertidal occupancy rate over sand for the infant age group based on 2 high-rate observations is 96 h y^{-1}

The observed 97.5th percentile rate based on 2 observations is 142 h y^{-1}

The mean intertidal occupancy rate over stones for the infant age group based on 2 high-rate observations is 8 h y^{-1}

The observed 97.5th percentile rate based on 2 observations is 12 h y^{-1}

Table 11. Gamma dose rate measurements over intertidal substrates in the Hinkley Point aquatic survey area (µGyh $^{-1}$)

Location	National Grid Reference	Substrate	Gamma dose rate at 1m[a]
Brean Down	ST 296 582	Sand	0.052
Brean	ST 296 575	Sand	0.053
Berrow	ST 290 537	Sand	0.053
Burnham-on-Sea	ST 300 482	Sand	0.052
Burnham-on-Sea	ST 302 488	Sand	0.050
River Brue	ST 304 478	Mud	0.069
Stert Flats	ST 260 455	Mud	0.068
Stolford	ST 233 459	Mud and sand	0.064
Hinkley Point	ST 215 463	Mud and sand	0.053
Kilve	ST 142 443	Sand	0.069
Donniford	ST 086 431	Sand	0.068
Watchet	ST 069 435	Sand and stones	0.070
Blue Anchor	ST 028 436	Sand	0.053

Notes

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

Table 12. Adults' handling rates of fishing gear and sediment in the Hinkley Point aquatic survey area (h y^{-1})

Person ID number	Location	Activity	Fishing gear	Sediment
1412/3/1	**Bridgwater Bay**	**Handling nets**	**912**	**-**
1288/1/1	**Blue Anchor**	**Bait digging**	**-**	**166**
1354/1/1	**Stolford, Burnham-on-Sea and Hinkley Point**	**Bait digging**	**-**	**104**
1322/1/1	Burnham-on-Sea	Bait digging	-	52
1607/1/1	Hinkley Point	Wildfowling	-	41
1340/1/1	Brean	Bait digging	-	26
1308/2/1	Blue Anchor	Bait digging	-	24
1308/1/1	Blue Anchor	Bait digging	-	24
1280/3/1	Blue Anchor	Bait digging	-	24
1641/1/1	Hinkley Point, Lilstock, Kilve and Burnham-on-Sea	Bait digging	-	20
1641/2/1	Hinkley Point, Lilstock, Kilve and Burnham-on-Sea	Bait digging	-	20

Notes

Emboldened observations are the high-rate individuals

The mean handling rate of fishing gear for adults based on 1 high-rate observation is 912 h y^{-1}

The observed 97.5th percentile is not applicable for 1 observation

The mean handling rate of sediments for adults based on 2 high-rate observations is 135 h y^{-1}

The observed 97.5th percentile rate based on 10 observations is 152 h y^{-1}

Table 13. Adults' occupancy rates in and on water in the Hinkley Point aquatic survey area (h y $^{-1}$)

Person ID number	Location	Activity	In water	On water
1368/1/1	Stolford	Kayaking	20	-
1368/2/1	Stolford	Kayaking	20	-
1300/1/1	Blue Anchor	Swimming	3	-
1300/2/1	Blue Anchor	Swimming	3	-
1300/4/1	Blue Anchor	Swimming	3	-
1300/5/1	Blue Anchor	Swimming	3	-
1357/1/1	Shurton Bars	Swimming	2	-
1554/1/1	In the survey area	Living on a boat	-	5757
1554/2/1	In the survey area	Living on a boat	-	5757
1553/1/1	In the survey area	Living on a boat	-	4176
1641/1/1	Within the survey area	Angling		913
	Combwich	Boat maintenance	-	
1297/1/1	Within the survey area	Angling	-	626
1299/1/1	Within the survey area	Angling	-	626
1641/2/1	Within the survey area	Angling		496
	Combwich	Boat maintenance	-	
1413/1/1	River Parrett and other locations within the survey area	Sailing	-	313
1327/2/1	Watchet	Sailing	-	230
1286/1/1	Within the survey area	Angling	-	216
1347/13/1	Watchet	Sailing, canoeing and power boating	-	210
1347/14/1	Watchet	Sailing, canoeing and power boating	-	210
1347/15/1	Watchet	Sailing, canoeing and power boating	-	210
1347/16/1	Watchet	Sailing, canoeing and power boating	-	210
1347/17/1	Watchet	Sailing, canoeing and power boating	-	210
1319/1/1	Burnham-on-Sea	Search and rescue duties	-	151
1319/1/2	Burnham-on-Sea	Search and rescue duties	-	151
1319/1/3	Burnham-on-Sea	Search and rescue duties	-	151
1319/1/4	Burnham-on-Sea	Search and rescue duties	-	151
1319/1/5	Burnham-on-Sea	Search and rescue duties	-	151
1319/1/6	Burnham-on-Sea	Search and rescue duties	-	151
1319/1/7	Burnham-on-Sea	Search and rescue duties	-	151
1319/1/8	Burnham-on-Sea	Search and rescue duties	-	151
1319/1/9	Burnham-on-Sea	Search and rescue duties	-	151
1319/1/10	Burnham-on-Sea	Search and rescue duties	-	151
1319/1/11	Burnham-on-Sea	Search and rescue duties	-	151

Table 13. Adults' occupancy rates in and on water in the Hinkley Point aquatic survey area (h y^{-1})

Person ID number	Location	Activity	In water	On water
1319/1/12	Burnham-on-Sea	Search and rescue duties	-	151
1319/1/13	Burnham-on-Sea	Search and rescue duties	-	151
1319/1/14	Burnham-on-Sea	Search and rescue duties	-	151
1319/1/15	Burnham-on-Sea	Search and rescue duties	-	151
1319/1/16	Burnham-on-Sea	Search and rescue duties	-	151
1319/1/17	Burnham-on-Sea	Search and rescue duties	-	151
1319/2/1	Burnham-on-Sea	Search and rescue duties	-	151
1319/2/2	Burnham-on-Sea	Search and rescue duties	-	151
1319/2/3	Burnham-on-Sea	Search and rescue duties	-	151
1403/1/1	Within the survey area	Angling	-	131
1640/1/1	Within the survey area	Dredging	-	100
1327/1/1	Burnham-on-Sea and Watchet	Sailing	-	90

Table 14. Children's and infants' occupancy rates in and on water in the Hinkley Point aquatic survey area (h y^{-1})

Child age group (6 - 15 years old)

Person ID number	Age	Location	Activity	In water	On water
1300/3/1	9	Blue Anchor	Swimming	3	-
1357/3/1	10	Shurton Bars	Swimming	2	-
1347/1/1	10	Watchet	Canoeing, sailing and power boating	-	210
1347/1/2	10	Watchet	Canoeing, sailing and power boating	-	210
1347/2/1	10	Watchet	Canoeing, sailing and power boating	-	210
1347/3/1	11	Watchet	Canoeing, sailing and power boating	-	210
1347/4/1	11	Watchet	Canoeing, sailing and power boating	-	210
1347/4/2	11	Watchet	Canoeing, sailing and power boating	-	210
1347/5/1	12	Watchet	Canoeing, sailing and power boating	-	210
1347/5/2	12	Watchet	Canoeing, sailing and power boating	-	210
1347/6/1	12	Watchet	Canoeing, sailing and power boating	-	210
1347/7/1	13	Watchet	Canoeing, sailing and power boating	-	210
1347/8/1	13	Watchet	Canoeing, sailing and power boating	-	210
1347/8/2	13	Watchet	Canoeing, sailing and power boating	-	210
1347/9/1	14	Watchet	Canoeing, sailing and power boating	-	210
1347/9/2	14	Watchet	Canoeing, sailing and power boating	-	210
1347/10/1	14	Watchet	Canoeing, sailing and power boating	-	210
1347/11/1	15	Watchet	Canoeing, sailing and power boating	-	210
1347/12/1	15	Watchet	Canoeing, sailing and power boating	-	210

Infant age group (0 - 5 years old)

No occupancy rate data obtained for this group.

Table 15. Adults' consumption rates of green vegetables from the Hinkley Point terrestrial survey area (kg y^{-1})

Person ID number	Asparagus	Broccoli	Cabbage	Cauliflower	Courgette	Cucumber	Kale	Lettuce	Spinach	Total
1244/1/1	**-**	**-**	**19.1**	**-**	**-**	**-**	**11.5**	**-**	**-**	**30.6**
1244/2/1	**-**	**-**	**19.1**	**-**	**-**	**-**	**11.5**	**-**	**-**	**30.6**
1244/3/1	**-**	**-**	**19.1**	**-**	**-**	**-**	**11.5**	**-**	**-**	**30.6**
1368/1/1	**-**	**3.4**	**-**	**1.7**	**9.4**	**0.6**	**1.9**	**1.9**	**4.8**	**23.7**
1368/2/1	**-**	**3.4**	**-**	**1.7**	**9.4**	**0.6**	**1.9**	**1.9**	**4.8**	**23.7**
1245/1/1	**-**	**13.3**	**-**	**6.6**	**-**	**-**	**-**	**1.6**	**-**	**21.5**
1245/2/1	**-**	**13.3**	**-**	**6.6**	**-**	**-**	**-**	**1.6**	**-**	**21.5**
1406/1/1	**5.9**	**4.8**	**-**	**4.1**	**3.7**	**-**	**-**	**0.6**	**-**	**19.0**
1406/2/1	**5.9**	**4.8**	**-**	**4.1**	**3.7**	**-**	**-**	**0.6**	**-**	**19.0**
1380/2/1	**-**	**3.5**	**2.6**	**-**	**-**	**8.5**	**-**	**-**	**2.0**	**16.6**
1412/1/1	**-**	**10.0**	**4.1**	**-**	**-**	**-**	**-**	**1.0**	**-**	**15.0**
1412/2/1	**-**	**10.0**	**4.1**	**-**	**-**	**-**	**-**	**1.0**	**-**	**15.0**
1412/3/1	**-**	**10.0**	**4.1**	**-**	**-**	**-**	**-**	**1.0**	**-**	**15.0**
1412/4/1	**-**	**10.0**	**4.1**	**-**	**-**	**-**	**-**	**1.0**	**-**	**15.0**
1412/5/1	**-**	**10.0**	**4.1**	**-**	**-**	**-**	**-**	**1.0**	**-**	**15.0**
1412/6/1	**-**	**10.0**	**4.1**	**-**	**-**	**-**	**-**	**1.0**	**-**	**15.0**
1268/1/1	**-**	**3.7**	**-**	**-**	**1.8**	**4.3**	**-**	**1.5**	**-**	**11.3**
1268/2/1	**-**	**3.7**	**-**	**-**	**1.8**	**4.3**	**-**	**1.5**	**-**	**11.3**
1380/1/1	-	3.5	2.6	-	-	-	-	-	2.0	8.1
1361/1/1	-	-	-	-	6.3	0.6	-	-	-	6.9
1361/2/1	-	-	-	-	6.3	0.6	-	-	-	6.9
1365/1/1	-	-	-	-	2.0	4.5	-	-	-	6.5
1365/2/1	-	-	-	-	2.0	4.5	-	-	-	6.5
1202/1/1	-	-	-	-	-	-	-	6.0	-	6.0
1202/2/1	-	-	-	-	-	-	-	6.0	-	6.0
1244/4/1	-	-	3.2	-	-	-	1.9	-	-	5.1
1244/5/1	-	-	3.2	-	-	-	1.9	-	-	5.1
1228/1/1	-	-	-	-	5.0	-	-	-	-	5.0
1228/2/1	-	-	-	-	5.0	-	-	-	-	5.0
1405/1/1	0.8	1.5	1.2	-	-	-	-	0.2	-	3.8
1405/2/1	0.8	1.5	1.2	-	-	-	-	0.2	-	3.8
1357/1/1	-	-	-	-	3.2	-	-	-	-	3.2
1357/2/1	-	-	-	-	3.2	-	-	-	-	3.2
1233/1/1	-	-	0.5	-	2.8	-	-	-	-	3.2
1233/2/1	-	-	0.5	-	2.8	-	-	-	-	3.2
1233/3/1	-	-	0.5	-	2.8	-	-	-	-	3.2
1233/4/1	-	-	0.5	-	2.8	-	-	-	-	3.2
1204/1/1	-	-	2.0	-	-	-	-	1.0	-	3.0
1204/2/1	-	-	2.0	-	-	-	-	1.0	-	3.0
1203/1/1	-	-	-	-	-	1.1	-	1.1	-	2.3
1203/2/1	-	-	-	-	-	1.1	-	1.1	-	2.3

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of green vegetables for adults based on the 18 high-rate consumers is 19.4 kg y^{-1}

The observed 97.5th percentile rate based on 41 observations is 30.6 kg y^{-1}

Table 16. Adults' consumption rates of other vegetables from the Hinkley Point terrestrial survey area (kg y $^{-1}$)

Person ID number	Aubergine	Broad bean	Chilli pepper	French bean	Mangetout	Pea	Pepper	Runner bean	Squash	Sweetcorn	Tomato	Total
1361/1/1	**-**	**-**	**-**	**-**	**-**	**21.4**	**-**	**21.4**	**-**	**-**	**37.3**	**80.2**
1361/2/1	**-**	**-**	**-**	**-**	**-**	**21.4**	**-**	**21.4**	**-**	**-**	**37.3**	**80.2**
1406/1/1	**4.1**	**7.3**	**-**	**3.2**	**-**	**1.8**	**8.8**	**-**	**2.7**	**1.8**	**20.7**	**50.5**
1406/2/1	**4.1**	**7.3**	**-**	**3.2**	**-**	**1.8**	**8.8**	**-**	**2.7**	**1.8**	**20.7**	**50.5**
1380/1/1	-	-	-	0.5	-	0.1	4.4	1.5	-	4.6	13.5	24.7
1380/2/1	-	-	-	0.5	-	0.1	4.4	1.5	-	4.6	13.5	24.7
1203/1/1	-	-	-	-	-	-	-	-	-	11.5	10.8	22.3
1203/2/1	-	-	-	-	-	-	-	-	-	11.5	10.8	22.3
1407/1/1	-	-	-	-	-	-	-	13.3	-	-	7.2	20.5
1245/1/1	-	8.1	-	-	-	-	-	9.2	-	-	-	17.2
1245/2/1	-	8.1	-	-	-	-	-	9.2	-	-	-	17.2
1244/1/1	-	-	-	-	-	-	-	6.1	1.1	1.4	6.5	15.1
1244/2/1	-	-	-	-	-	-	-	6.1	1.1	1.4	6.5	15.1
1244/3/1	-	-	-	-	-	-	-	6.1	1.1	1.4	6.5	15.1
1365/1/1	-	-	0.1	0.4	1.9	-	-	-	-	1.1	11.5	15.0
1365/2/1	-	-	0.1	0.4	1.9	-	-	-	-	1.1	11.5	15.0
1268/1/1	-	2.3	-	-	-	-	-	3.4	-	-	9.0	14.7
1268/2/1	-	2.3	-	-	-	-	-	3.4	-	-	9.0	14.7
1202/1/1	-	1.1	-	1.4	-	-	-	8.5	-	1.8	-	12.8
1202/2/1	-	1.1	-	1.4	-	-	-	8.5	-	1.8	-	12.8
1412/1/1	-	-	-	3.6	-	-	-	9.1	-	-	-	12.7
1412/2/1	-	-	-	3.6	-	-	-	9.1	-	-	-	12.7
1412/3/1	-	-	-	3.6	-	-	-	9.1	-	-	-	12.7
1412/4/1	-	-	-	3.6	-	-	-	9.1	-	-	-	12.7
1412/5/1	-	-	-	3.6	-	-	-	9.1	-	-	-	12.7
1412/6/1	-	-	-	3.6	-	-	-	9.1	-	-	-	12.7
1306/1/1	-	4.6	-	-	-	-	-	6.8	-	-	-	11.3
1306/2/1	-	4.6	-	-	-	-	-	6.8	-	-	-	11.3
1368/1/1	-	-	-	-	-	6.8	-	2.0	-	2.1	0.4	11.2
1368/2/1	-	-	-	-	-	6.8	-	2.0	-	2.1	0.4	11.2
1405/1/1	-	-	-	0.1	-	-	-	8.2	-	-	0.1	8.4
1405/2/1	-	-	-	0.1	-	-	-	8.2	-	-	0.1	8.4
1357/1/1	-	-	-	-	-	5.4	-	1.8	-	0.8	-	8.1
1357/2/1	-	-	-	-	-	5.4	-	1.8	-	0.8	-	8.1
1228/1/1	-	-	-	-	-	-	-	6.5	-	-	-	6.5
1228/2/1	-	-	-	-	-	-	-	6.5	-	-	-	6.5
1270/1/1	-	3.0	-	-	-	1.0	-	1.0	-	-	-	5.0
1270/2/1	-	3.0	-	-	-	1.0	-	1.0	-	-	-	5.0
1271/1/1	-	3.0	-	-	-	1.0	-	1.0	-	-	-	5.0
1271/2/1	-	3.0	-	-	-	1.0	-	1.0	-	-	-	5.0
1341/1/1	-	-	-	-	-	-	-	4.1	-	-	-	4.1

Table 16. Adults' consumption rates of other vegetables from the Hinkley Point terrestrial survey area (kg y $^{-1}$)

Person ID number	Aubergine	Broad bean	Chilli pepper	French bean	Mangetout	Pea	Pepper	Runner bean	Squash	Sweetcorn	Tomato	Total
1341/2/1	-	-	-	-	-	-	-	4.1	-	-	-	4.1
1233/1/1	-	-	-	-	-	-	-	0.6	-	0.2	2.2	3.1
1233/2/1	-	-	-	-	-	-	-	0.6	-	0.2	2.2	3.1
1233/3/1	-	-	-	-	-	-	-	0.6	-	0.2	2.2	3.1
1233/4/1	-	-	-	-	-	-	-	0.6	-	0.2	2.2	3.1
1244/4/1	-	-	-	-	-	-	-	1.0	0.2	0.2	1.1	2.5
1244/5/1	-	-	-	-	-	-	-	1.0	0.2	0.2	1.1	2.5
1369/1/1	-	1.7	-	-	-	-	-	-	-	-	-	1.7
1369/2/1	-	1.7	-	-	-	-	-	-	-	-	-	1.7

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of other vegetables for adults based on the 4 high-rate consumers is 65.3 kg y $^{-1}$

The observed 97.5th percentile rate based on 50 observations is 73.5 kg y $^{-1}$

Table 17. Adults' consumption rates of root vegetables from the Hinkley Point terrestrial survey area (kg y^{-1})

Person ID number	Beetroot	Carrot	Celeriac	Celery	Fennel	Garlic	Leek	Onion	Parsnip	Radish	Shallot	Turnip	Total
1203/1/1	**5.6**	**22.5**	**-**	**-**	**-**	**-**	**-**	**4.5**	**4.5**	**-**	**-**	**-**	**37.1**
1203/2/1	**5.6**	**22.5**	**-**	**-**	**-**	**-**	**-**	**4.5**	**4.5**	**-**	**-**	**-**	**37.1**
1368/1/1	**3.4**	**3.0**	**-**	**6.0**	**-**	**1.1**	**-**	**17.5**	**3.2**	**0.7**	**-**	**1.6**	**36.6**
1368/2/1	**3.4**	**3.0**	**-**	**6.0**	**-**	**1.1**	**-**	**17.5**	**3.2**	**0.7**	**-**	**1.6**	**36.6**
1406/1/1	**-**	**8.1**	**0.8**	**-**	**0.1**	**1.0**	**-**	**14.4**	**-**	**-**	**-**	**-**	**24.4**
1406/2/1	**-**	**8.1**	**0.8**	**-**	**0.1**	**1.0**	**-**	**14.4**	**-**	**-**	**-**	**-**	**24.4**
1245/1/1	**4.0**	**-**	**-**	**-**	**-**	**-**	**8.0**	**6.4**	**-**	**-**	**5.7**	**-**	**24.0**
1245/2/1	**4.0**	**-**	**-**	**-**	**-**	**-**	**8.0**	**6.4**	**-**	**-**	**5.7**	**-**	**24.0**
1202/1/1	**1.1**	**6.8**	**-**	**-**	**-**	**-**	**-**	**7.2**	**0.9**	**-**	**-**	**-**	**16.0**
1202/2/1	**1.1**	**6.8**	**-**	**-**	**-**	**-**	**-**	**7.2**	**0.9**	**-**	**-**	**-**	**16.0**
1412/1/1	3.0	3.0	-	-	-	-	-	2.4	2.4	-	-	-	10.8
1412/2/1	3.0	3.0	-	-	-	-	-	2.4	2.4	-	-	-	10.8
1412/3/1	3.0	3.0	-	-	-	-	-	2.4	2.4	-	-	-	10.8
1412/4/1	3.0	3.0	-	-	-	-	-	2.4	2.4	-	-	-	10.8
1412/5/1	3.0	3.0	-	-	-	-	-	2.4	2.4	-	-	-	10.8
1412/6/1	3.0	3.0	-	-	-	-	-	2.4	2.4	-	-	-	10.8
1357/1/1	-	8.1	-	-	-	-	-	1.9	-	-	-	-	10.0
1357/2/1	-	8.1	-	-	-	-	-	1.9	-	-	-	-	10.0
1268/1/1	2.3	2.3	-	-	-	-	-	-	-	0.9	-	-	5.4
1268/2/1	2.3	2.3	-	-	-	-	-	-	-	0.9	-	-	5.4
1244/1/1	-	-	-	-	-	-	-	5.0	-	-	-	-	5.0
1244/2/1	-	-	-	-	-	-	-	5.0	-	-	-	-	5.0
1244/3/1	-	-	-	-	-	-	-	5.0	-	-	-	-	5.0
1228/1/1	2.7	-	-	-	-	-	-	2.2	-	-	-	-	4.9
1228/2/1	2.7	-	-	-	-	-	-	2.2	-	-	-	-	4.9
1306/1/1	-	4.5	-	-	-	-	-	-	-	-	-	-	4.5
1306/2/1	-	4.5	-	-	-	-	-	-	-	-	-	-	4.5
1270/1/1	-	-	-	-	-	-	-	3.0	-	-	1.0	-	4.0
1270/2/1	-	-	-	-	-	-	-	3.0	-	-	1.0	-	4.0
1271/1/1	-	-	-	-	-	-	-	3.0	-	-	1.0	-	4.0
1271/2/1	-	-	-	-	-	-	-	3.0	-	-	1.0	-	4.0
1380/1/1	-	3.4	-	-	-	-	-	-	-	-	-	-	3.4
1380/2/1	-	3.4	-	-	-	-	-	-	-	-	-	-	3.4
1405/1/1	0.9	0.9	-	-	-	-	-	0.4	0.7	-	-	-	2.9
1405/2/1	0.9	0.9	-	-	-	-	-	0.4	0.7	-	-	-	2.9
1365/1/1	0.5	0.5	-	-	-	-	-	-	0.4	-	-	-	1.3
1365/2/1	0.5	0.5	-	-	-	-	-	-	0.4	-	-	-	1.3
1244/4/1	-	-	-	-	-	-	-	0.8	-	-	-	-	0.8
1244/5/1	-	-	-	-	-	-	-	0.8	-	-	-	-	0.8
1233/1/1	-	-	-	-	-	-	-	0.8	-	-	-	-	0.8
1233/2/1	-	-	-	-	-	-	-	0.8	-	-	-	-	0.8
1233/3/1	-	-	-	-	-	-	-	0.8	-	-	-	-	0.8
1233/4/1	-	-	-	-	-	-	-	0.8	-	-	-	-	0.8

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of root vegetables for adults based on the 10 high-rate consumers is 27.6 kg y^{-1}

The observed 97.5th percentile rate based on 43 observations is 37.1 kg y^{-1}

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

Person ID number	Potato
1203/1/1	**125.1**
1203/2/1	**125.1**
1306/1/1	**52.6**
1306/2/1	**52.6**
1306/3/1	**52.6**
1306/4/1	**52.6**
1306/5/1	**52.6**
1306/6/1	**52.6**
1306/7/1	**52.6**
1306/8/1	**52.6**
1245/1/1	32.2
1245/2/1	32.2
1361/1/1	29.8
1361/2/1	29.8
1406/1/1	22.8
1406/2/1	22.8
1357/1/1	16.4
1357/2/1	16.4
1412/1/1	15.2
1412/2/1	15.2
1412/3/1	15.2
1412/4/1	15.2
1412/5/1	15.2
1412/6/1	15.2
1270/1/1	15.0
1270/2/1	15.0
1271/1/1	15.0
1271/2/1	15.0
1228/1/1	8.2
1228/2/1	8.2
1365/1/1	7.8
1365/2/1	7.8
1380/1/1	7.3
1380/2/1	7.3
1233/1/1	4.1
1233/2/1	4.1
1233/3/1	4.1
1233/4/1	4.1
1244/1/1	3.6
1244/2/1	3.6
1244/3/1	3.6
1244/4/1	0.6
1244/5/1	0.6

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of potato for adults based on the 10 high-rate consumers is 67.1 kg $\dot{y}^{1}$

The observed 97.5th percentile rate based on 43 observations is 121.5 kg y^{-1}

Table 19. Adults' consumption rates of domestic fruit from the Hinkley Point terrestrial survey area (kg y^{-1})

Person ID number	Apple	Blackcurrant	Damson	Fig	Gooseberry	Grape	Loganberry	Melon	Peach	Pear	Plum	Raspberry	Redcurrant	Rhubarb	Strawberry	Total
1406/1/1	**5.7**	**-**	**-**	**1.1**	**-**	**-**	**1.1**	**-**	**0.7**	**20.0**	**1.5**	**8.1**	**4.5**	**0.9**	**14.3**	**58.0**
1406/2/1	**5.7**	**-**	**-**	**1.1**	**-**	**-**	**1.1**	**-**	**0.7**	**20.0**	**1.5**	**8.1**	**4.5**	**0.9**	**14.3**	**58.0**
1405/1/1	**20.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**22.7**	**-**	**0.01**	**-**	**3.5**	**-**	**46.1**
1405/2/1	**20.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**22.7**	**-**	**0.01**	**-**	**3.5**	**-**	**46.1**
1380/2/1	**26.6**	**-**	**-**	**3.0**	**1.8**	**-**	**-**	**3.8**	**-**	**-**	**-**	**1.0**	**-**	**2.0**	**-**	**38.1**
1203/1/1	**14.3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.5**	**-**	**12.2**	**-**	**-**	**-**	**32.0**
1203/2/1	**14.3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.5**	**-**	**12.2**	**-**	**-**	**-**	**32.0**
1380/1/1	**19.6**	**-**	**-**	**3.0**	**1.8**	**-**	**-**	**3.8**	**-**	**-**	**-**	**1.0**	**-**	**2.0**	**-**	**31.1**
1658/1/1	**23.7**	**-**	**0.9**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.5**	**-**	**-**	**-**	**-**	**25.0**
1368/1/1	7.5	-	-	-	-	-	-	-	-	-	-	1.9	-	0.9	8.6	18.8
1368/2/1	7.5	-	-	-	-	-	-	-	-	-	-	1.9	-	0.9	8.6	18.8
1270/1/1	15.0	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-	16.0
1270/2/1	15.0	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-	16.0
1271/1/1	15.0	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-	16.0
1271/2/1	15.0	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-	16.0
1361/1/1	-	3.2	-	-	-	-	-	-	-	-	-	4.6	2.6	-	1.1	11.6
1361/2/1	-	3.2	-	-	-	-	-	-	-	-	-	4.6	2.6	-	1.1	11.6
1407/1/1	3.0	-	-	-	-	-	-	-	-	2.0	5.0	0.9	-	-	-	10.9
1245/1/1	-	-	-	-	-	-	-	-	-	-	-	2.3	-	1.0	6.1	9.4
1245/2/1	-	-	-	-	-	-	-	-	-	-	-	2.3	-	1.0	6.1	9.4
1412/1/1	4.5	-	-	-	-	0.8	-	-	-	1.1	-	-	-	-	-	6.4
1412/2/1	4.5	-	-	-	-	0.8	-	-	-	1.1	-	-	-	-	-	6.4
1412/3/1	4.5	-	-	-	-	0.8	-	-	-	1.1	-	-	-	-	-	6.4
1412/4/1	4.5	-	-	-	-	0.8	-	-	-	1.1	-	-	-	-	-	6.4
1412/5/1	4.5	-	-	-	-	0.8	-	-	-	1.1	-	-	-	-	-	6.4
1412/6/1	4.5	-	-	-	-	0.8	-	-	-	1.1	-	-	-	-	-	6.4
1205/1/1	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	-	6.4
1205/2/1	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	-	6.4
1365/1/1	-	0.6	-	-	-	-	-	-	-	-	1.2	1.8	-	-	1.5	5.2
1365/2/1	-	0.6	-	-	-	-	-	-	-	-	1.2	1.8	-	-	1.5	5.2
1357/1/1	-	1.7	-	-	-	-	-	-	-	-	-	1.8	1.4	-	-	4.9
1357/2/1	-	1.7	-	-	-	-	-	-	-	-	-	1.8	1.4	-	-	4.9
1369/1/1	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.4
1369/2/1	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.4
1204/1/1	-	-	-	-	-	-	-	-	-	-	-	2.2	-	-	-	2.2
1204/2/1	-	-	-	-	-	-	-	-	-	-	-	2.2	-	-	-	2.2
1228/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	2.0
1228/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	2.0
1233/1/1	-	-	-	-	-	-	-	-	-	-	-	1.7	-	-	-	1.7
1233/2/1	-	-	-	-	-	-	-	-	-	-	-	1.7	-	-	-	1.7
1233/3/1	-	-	-	-	-	-	-	-	-	-	-	1.7	-	-	-	1.7
1233/4/1	-	-	-	-	-	-	-	-	-	-	-	1.7	-	-	-	1.7

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of domestic fruit for adults based on the 9 high-rate consumers is 40.7 kg y^{-1}

The observed 97.5th percentile rate based on 42 observations is 57.7 kg y^{-1}

Table 20. Adults' consumption rates of milk from the Hinkley Point terrestrial survey area (l y^{-1})

Person ID number	Cows' milk
1205/2/1	**414.6**
1201/2/1	**365.0**
1266/2/1	**365.0**
1266/4/1	**365.0**
1205/1/1	**311.0**
1206/1/1	103.7
1206/2/1	103.7
1361/5/1	91.3
1361/1/1	52.1
1361/2/1	52.1
1306/3/1	8.3
1306/4/1	8.3
1306/5/1	8.3
1306/6/1	8.3
1306/7/1	8.3
1306/8/1	8.3

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of milk for adults based on the 5 high-rate consumers is 364.1 l y^{-1}

The observed 97.5th percentile rate based on 16 observations is 396.0 l y^{-1}

Table 21. Adults' consumption rates of cattle meat from the Hinkley Point terrestrial survey area (kg y^{-1})

Person ID number	Beef
1203/1/1	**94.6**
1203/2/1	**94.6**
1205/1/1	**94.6**
1205/2/1	**94.6**
1248/1/1	**63.1**
1248/2/1	**63.1**
1248/3/1	**63.1**
1263/1/1	**47.3**
1263/2/1	**47.3**
1263/3/1	**47.3**
1263/4/1	**47.3**
1206/1/1	29.1
1206/2/1	29.1
1306/1/1	19.9
1306/2/1	19.9
1306/3/1	19.9
1306/4/1	19.9
1306/5/1	19.9
1306/6/1	19.9
1306/7/1	19.9
1306/8/1	19.9

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of cattle meat for adults based on the 11 high-rate consumers is 68.8 kg y^{-1}

The observed 97.5th percentile rate based on 21 observations is 94.6 kg y^{-1}

Table 22. Adults' consumption rates of pig meat from the Hinkley Point terrestrial survey area (kg y^{-1})

Person ID number	Pork
1248/1/1	16.9
1248/2/1	16.9
1248/3/1	16.9
1306/1/1	10.7
1306/2/1	10.7
1306/3/1	10.7
1306/4/1	10.7
1306/5/1	10.7
1306/6/1	10.7
1306/7/1	10.7
1306/8/1	10.7

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of pig meat for adults based on the 11 high-rate consumers is 12.3 kg y^{-1}

The observed 97.5th percentile rate based on 11 observations is 16.9 kg y^{-1}

Table 23. Adults' consumption rates of sheep meat from the Hinkley Point terrestrial survey area (kg y^{-1})

Person ID number	Lamb	Mutton	Total
1338/1/1	-	13.0	13.0
1338/2/1	-	13.0	13.0
1248/1/1	11.3	-	11.3
1248/2/1	11.3	-	11.3
1248/3/1	11.3	-	11.3
1263/1/1	5.7	-	5.7
1263/2/1	5.7	-	5.7
1263/3/1	5.7	-	5.7
1263/4/1	5.7	-	5.7

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of sheep meat for adults based on the 9 high-rate consumers is 9.2 kg y^{-1}

The observed 97.5th percentile rate based on 9 observations is 13.0 kg y^{-1}

Table 24. Adults' consumption rates of poultry from the Hinkley Point terrestrial survey area (kg y^{-1})

Person ID number	Chicken	Duck (unspecified species)	Partridge	Pheasant	Pigeon	Total
1267/1/1	**19.6**	**-**	**-**	**-**	**-**	**19.6**
1267/2/1	**19.6**	**-**	**-**	**-**	**-**	**19.6**
1203/1/1	-	0.4	-	5.6	-	6.1
1203/2/1	-	0.4	-	5.6	-	6.1
1232/1/1	-	-	4.2	1.3	-	5.6
1204/1/1	-	-	-	2.7	-	2.7
1204/2/1	-	-	-	2.7	-	2.7
1412/1/1	-	-	-	2.7	-	2.7
1412/2/1	-	-	-	2.7	-	2.7
1248/1/1	-	-	-	1.2	0.3	1.5
1248/2/1	-	-	-	1.2	0.3	1.5
1248/3/1	-	-	-	1.2	0.3	1.5
1306/7/1	-	-	-	1.3	-	1.3
1306/8/1	-	-	-	1.3	-	1.3

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of poultry for adults based on the 2 high-rate consumers is 19.6 kg y^{-1}

The observed 97.5th percentile rate based on 14 observations is 19.6 kg y^{-1}

Table 25. Adults' consumption rates of eggs from the Hinkley Point terrestrial survey area (kg y^{-1})

Person ID number	Chicken egg	Duck egg	Goose egg	Total
1652/1/1	**17.8**	**64.3**	**-**	**82.1**
1411/1/1	**13.3**	**35.3**	**-**	**48.6**
1411/2/1	**13.3**	**35.3**	**-**	**48.6**
1410/1/1	**42.2**	**-**	**-**	**42.2**
1228/1/1	**37.3**	**-**	**-**	**37.3**
1228/2/1	**37.3**	**-**	**-**	**37.3**
1270/1/1	**35.7**	**-**	**-**	**35.7**
1270/2/1	**35.7**	**-**	**-**	**35.7**
1271/1/1	**35.7**	**-**	**-**	**35.7**
1271/2/1	**35.7**	**-**	**-**	**35.7**
1201/1/1	**29.7**	**-**	**-**	**29.7**
1201/2/1	**29.7**	**-**	**-**	**29.7**
1204/2/1	23.8	-	-	23.8
1368/1/1	23.3	-	-	23.3
1368/2/1	23.3	-	-	23.3
1268/1/1	7.6	15.1	-	22.8
1268/2/1	7.6	15.1	-	22.8
1239/1/1	17.8	-	-	17.8
1239/2/1	17.8	-	-	17.8
1338/1/1	17.8	-	-	17.8
1338/2/1	17.8	-	-	17.8
1652/2/1	17.8	-	-	17.8
1412/1/1	17.8	-	-	17.8
1412/2/1	17.8	-	-	17.8
1266/5/1	-	17.7	-	17.7
1245/1/1	16.0	-	-	16.0
1245/2/1	16.0	-	-	16.0
1266/1/1	7.6	-	2.6	10.2
1266/2/1	7.6	-	-	7.6
1266/4/1	7.6	-	-	7.6
1380/1/1	-	2.7	-	2.7
1380/2/1	-	2.7	-	2.7
1306/1/1	2.2	-	-	2.2
1306/2/1	2.2	-	-	2.2
1306/7/1	2.2	-	-	2.2
1306/8/1	2.2	-	-	2.2
1406/1/1	0.04	-	-	0.04
1406/2/1	0.04	-	-	0.04

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of eggs for adults based on the 12 high-rate consumers is 41.5 kg y^{-1}

The observed 97.5th percentile rate based on 38 observations is 51.1 kg y^{-1}

Table 26. Adults' consumption rates of wild/free foods from the Hinkley Point terrestrial survey area (kg y^{-1})

Person ID number	Blackberry	Damson	Elderberry	Hazelnut	Total
1264/1/1	**1.7**	**3.0**	**-**	**-**	**4.7**
1264/2/1	**1.7**	**3.0**	**-**	**-**	**4.7**
1264/3/1	**1.7**	**3.0**	**-**	**-**	**4.7**
1361/1/1	**-**	**-**	**-**	**4.0**	**4.0**
1361/5/1	**-**	**-**	**-**	**4.0**	**4.0**
1361/6/1	**-**	**-**	**-**	**4.0**	**4.0**
1380/1/1	**2.5**	**-**	**0.5**	**-**	**3.0**
1380/2/1	**2.5**	**-**	**0.5**	**-**	**3.0**
1203/1/1	**1.5**	**-**	**-**	**0.5**	**2.0**
1203/2/1	**1.5**	**-**	**-**	**0.5**	**2.0**
1266/1/1	**2.0**	**-**	**-**	**-**	**2.0**
1266/2/1	**2.0**	**-**	**-**	**-**	**2.0**
1266/4/1	**2.0**	**-**	**-**	**-**	**2.0**
1407/1/1	**2.0**	**-**	**-**	**-**	**2.0**
1267/1/1	**1.8**	**-**	**-**	**-**	**1.8**
1267/2/1	**1.8**	**-**	**-**	**-**	**1.8**
1658/1/1	1.4	-	-	-	1.4
1204/1/1	1.0	-	-	-	1.0
1204/2/1	1.0	-	-	-	1.0
1239/1/1	0.9	-	-	-	0.9
1239/2/1	0.9	-	-	-	0.9
1412/1/1	0.9	-	-	-	0.9
1412/2/1	0.9	-	-	-	0.9
1607/1/1	0.7	-	-	-	0.7
1607/2/1	0.7	-	-	-	0.7
1201/1/1	0.5	-	-	-	0.5
1201/2/1	0.5	-	-	-	0.5
1268/1/1	0.5	-	-	-	0.5
1268/2/1	0.5	-	-	-	0.5
1270/1/1	0.5	-	-	-	0.5
1270/2/1	0.5	-	-	-	0.5
1271/1/1	0.5	-	-	-	0.5
1271/2/1	0.5	-	-	-	0.5
1248/1/1	0.5	-	-	-	0.5
1248/2/1	0.5	-	-	-	0.5
1248/3/1	0.5	-	-	-	0.5
1306/1/1	0.2	-	-	-	0.2
1306/2/1	0.2	-	-	-	0.2
1306/3/1	0.2	-	-	-	0.2
1306/4/1	0.2	-	-	-	0.2
1306/5/1	0.2	-	-	-	0.2
1306/6/1	0.2	-	-	-	0.2
1306/7/1	0.2	-	-	-	0.2
1306/8/1	0.2	-	-	-	0.2
1369/1/1	0.2	-	-	-	0.2
1369/2/1	0.2	-	-	-	0.2

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of wild/free foods for adults based on the 16 high-rate consumers is 3.0 kg y^{-1}

The observed 97.5th percentile rate based on 46 observations is 4.7 kg y^{-1}

Table 27. Adults' consumption rates of rabbits/hares from the Hinkley Point terrestrial survey area (kg y^{-1})

Person ID number	Rabbit
1203/1/1	**1.3**
1203/2/1	**1.3**
1266/1/1	**1.1**
1266/2/1	**1.1**
1266/4/1	**1.1**
1268/1/1	**0.9**
1268/2/1	**0.9**

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of rabbits/hares for adults based on the 7 high-rate consumers is 1.1 kg y^{-1}

The observed 97.5th percentile rate based on 7 observations is 1.3 kg y^{-1}

Table 28. Adults' consumption rates of honey from the Hinkley Point terrestrial survey area (kg y^{-1})

Person ID number	Honey
1203/1/1	**1.4**
1203/2/1	**1.4**
1252/2/1	**1.4**
1252/1/1	**1.0**
1406/1/1	**0.7**
1406/2/1	**0.7**
1247/1/1	0.2
1247/2/1	0.2
1412/1/1	0.2
1412/2/1	0.2
1335/1/1	0.1
1335/2/1	0.1
1365/1/1	0.1
1365/2/1	0.1

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of honey for adults based on the 6 high-rate consumers is 1.1 kg y^{-1}

The observed 97.5th percentile rate based on 14 observations is 1.4 kg y^{-1}

Table 29. Adults' consumption rates of wild fungi from the Hinkley Point terrestrial survey area (kg y $^{-1}$)

Person ID number	Mushrooms
1266/1/1	**2.4**
1266/2/1	**2.4**
1266/4/1	**2.4**
1404/1/1	**1.4**
1203/1/1	**1.1**
1203/2/1	**1.1**
1380/1/1	0.8
1380/2/1	0.8
1248/1/1	0.5
1248/2/1	0.5
1248/3/1	0.5
1306/1/1	0.2
1306/2/1	0.2
1306/3/1	0.2
1306/4/1	0.2
1306/5/1	0.2
1306/6/1	0.2
1306/7/1	0.2
1306/8/1	0.2

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of wild fungi for adults based on the 6 high-rate consumers is 1.8 kg y $^{-1}$

The observed 97.5th percentile rate based on 19 observations is 2.4 kg y $^{-1}$

Table 30. Adults' consumption rates of goat meat from the Hinkley Point terrestrial survey area (kg y $^{-1}$)

Person ID number	Goat
1338/1/1	**3.4**
1338/2/1	**3.4**

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of goat meat for adults based on the 2 high-rate consumers is 3.4 kg y $^{-1}$

The observed 97.5th percentile rate based on 2 observations is 3.4 kg y $^{-1}$

Table 31. Children's and infants' consumption rates of green vegetables from the Hinkley Point terrestrial survey area (kg y $^{-1}$)

Child age group (6 - 15 years old)

Person ID number	Age	Courgette	Cucumber	Total
1365/3/1	**11**	**2.0**	**4.5**	**6.5**
1361/3/1	**8**	**4.7**	**0.4**	**5.2**
1361/4/1	**7**	**4.7**	**0.4**	**5.2**
1357/3/1	**10**	**3.2**	**-**	**3.2**

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of green vegetables for the child age group based on the 4 high-rate consumers is 5.0 kg y $^{-1}$

The observed 97.5th percentile rate based on 4 observations is 6.4 kg y^{-1}

Infant age group (0 - 5 years old)

No consumption data obtained for this food group.

Table 32. Children's and infants' consumption rates of other vegetables from the Hinkley Point terrestrial survey area (kg y $^{-1}$)

Child age group (6 - 15 years old)

Person ID number	Age	Chilli pepper	French bean	Mangetout	Pea	Runner bean	Sweetcorn	Tomato	Total
1361/3/1	**8**	**-**	**-**	**-**	**16.1**	**16.1**	**-**	**28.0**	**60.2**
1361/4/1	**7**	**-**	**-**	**-**	**16.1**	**16.1**	**-**	**28.0**	**60.2**
1365/3/1	11	0.1	0.4	1.9	-	-	1.1	11.5	15.0
1357/3/1	10	-	-	-	5.4	1.8	0.8	-	8.1

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of other vegetables for the child age group based on the 2 high-rate consumers is 60.2 kg y $^{-1}$

The observed 97.5th percentile rate based on 4 observations is 60.2 kg y^{-1}

Infant age group (0 - 5 years old)

No consumption data obtained for this food group.

Table 33. Children's and infants' consumption rates of root vegetables from the Hinkley Point terrestrial survey area (kg y^{-1})

Child age group (6 - 15 years old)

Person ID number	Age	Beetroot	Carrot	Onion	Parsnip	Total
1357/3/1	**10**	**-**	**8.1**	**1.9**	**-**	**10.0**
1365/3/1	11	0.5	0.5	-	0.4	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 1 high-rate consumers is 10.0 kg y^{-1}

The observed 97.5th percentile rate based on 2 observations is 9.8 kg y^{-1}

Infant age group (0 - 5 years old)

No consumption data obtained for this food group.

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

Child age group (6 - 15 years old)

Person ID number	Age	Potato
1306/9/1	**9**	**39.5**
1306/10/1	**6**	**39.5**
1361/3/1	**8**	**22.3**
1361/4/1	**7**	**22.3**
1357/3/1	**10**	**16.4**
1365/3/1	11	7.8

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 28.0 kg y^{-1}

The observed 97.5th percentile rate based on 6 observations is 39.5 kg y^{-1}

Infant age group (0 - 5 years old)

No consumption data obtained for this food group.

Table 35. Children's and infants' consumption rates of domestic fruit from the Hinkley Point terrestrial survey area (kg y^{-1})

Child age group (6 - 15 years old)

Person ID number	Age	Blackcurrant	Plum	Raspberry	Redcurrant	Strawberry	Total
1361/3/1	**8**	**2.4**	**-**	**3.4**	**1.9**	**0.9**	**8.7**
1361/4/1	**7**	**2.4**	**-**	**3.4**	**1.9**	**0.9**	**8.7**
1205/3/1	**14**	**-**	**-**	**6.4**	**-**	**-**	**6.4**
1205/4/1	**11**	**-**	**-**	**6.4**	**-**	**-**	**6.4**
1365/3/1	**11**	**0.6**	**1.2**	**1.8**	**-**	**1.5**	**5.2**
1357/3/1	**10**	**1.7**	**-**	**1.8**	**1.4**	**-**	**4.9**

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of domestic fruit for the child age group based on the 6 high-rate consumers is 6.7 kg y^{-1}

The observed 97.5th percentile rate based on 6 observations is 8.7 kg y^{-1}

Infant age group (0 - 5 years old)

No consumption data obtained for this food group.

Table 36. Children's and infants' consumption rates of milk from the Hinkley Point terrestrial survey area (l y^{-1})

Child age group (6 - 15 years old)

Person ID number	Age	Cows' milk
1266/3/1	**12**	**365.0**
1205/3/1	**14**	**311.0**
1205/4/1	**11**	**311.0**
1206/4/1	7	103.7
1361/3/1	8	39.1
1361/4/1	7	39.1

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of milk for the child age group based on the 3 high-rate consumers is 329.0 l y^{-1}

The observed 97.5th percentile rate based on 6 observations is 358.2 l y^{-1}

Infant age group (0 - 5 years old)

Person ID number	Age	Cows' milk
1206/3/1	**5**	**103.7**

Notes

The emboldened observation is the high-rate consumer

The mean consumption rate of milk for the infant age group based on the 1 high-rate consumer is 103.7 l y^{-1}

The observed 97.5th percentile is not applicable for 1 observation

Table 37. Children's and infants' consumption rates of cattle meat from the Hinkley Point terrestrial survey area (kg y $^{-1}$)

Child age group (6 - 15 years old)

Person ID number	Age	Beef
1205/3/1	**14**	**47.3**
1205/4/1	**11**	**47.3**
1206/4/1	**7**	**21.8**
1306/9/1	9	14.9
1306/10/1	6	14.9

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of cattle meat for the child age group based on the 3 high-rate consumers is 38.8 kg y $^{-1}$

The observed 97.5th percentile rate based on 5 observations is 47.3 kg y $^{-1}$

Infant age group (0 - 5 years old)

Person ID number	Age	Beef
1206/3/1	**5**	**14.6**

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 14.6 kg y $^{-1}$

The observed 97.5th percentile is not applicable for 1 observation

Table 38. Children's and infants' consumption rates of pig meat from the Hinkley Point terrestrial survey area (kg y $^{-1}$)

Child age group (6 - 15 years old)

Person ID number	Age	Pork
1306/9/1	**9**	**8.0**
1306/10/1	**6**	**8.0**

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of pig meat for the child age group based on the 2 high-rate consumers is 8.0 kg y $^{-1}$

The observed 97.5th percentile rate based on 2 observations is 8.0 kg y $^{-1}$

Infant age group (0 - 5 years old)

No consumption data obtained for this food group.

Table 39. Children's and infants' consumption rates of eggs from the Hinkley Point terrestrial survey area (kg y $^{-1}$)

Child age group (6 - 15 years old)

Person ID number	Age	Chicken egg	Duck egg	Goose egg	Total
1411/3/1	**8**	**10.0**	**26.4**	**-**	**36.4**
1411/4/1	**6**	**10.0**	**26.4**	**-**	**36.4**
1266/3/1	12	7.6	-	2.6	10.2

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of eggs for the child age group based on the 2 high-rate consumers is 36.4 kg y $^{-1}$

The observed 97.5th percentile rate based on 3 observations is 36.4 kg y $^{-1}$

Infant age group (0 - 5 years old)

No consumption data obtained for this food group.

Table 40. Children's and infants' consumption rates of wild/free foods from the Hinkley Point terrestrial survey area (kg y $^{-1}$)

Child age group (6 - 15 years old)

Person ID number	Age	Blackberry
1266/3/1	**12**	**2.0**
1306/9/1	9	0.2
1306/10/1	6	0.2

Notes

The emboldened observation is the high-rate consumer

The mean consumption rate of wild/free foods for the child age group based on the 1 high-rate consumers is 2.0 kg y $^{-1}$

The observed 97.5th percentile rate based on 3 observations is 1.9 kg y $^{-1}$

Infant age group (0 - 5 years old)

No consumption data obtained for this food group.

Table 41. Children's and infants' consumption rates of rabbits/hares from the Hinkley Point terrestrial survey area (kg y $^{-1}$)

Child age group (6 - 15 years old)

Person ID number	Age	Rabbit
1266/3/1	**12**	**1.1**

Notes

The emboldened observation is the high-rate consumer

The mean consumption rate of rabbits/hares for the child age group based on the 1 high-rate consumer is 1.1 kg y $^{-1}$

The observed 97.5th percentile is not applicable for 1 observation

Infant age group (0 - 5 years old)

No consumption data obtained for this food group.

Table 42. Children's and infants' consumption rates of honey from the Hinkley Point terrestrial survey area (kg y^{-1})

Child age group (6 - 15 years old)

Person ID number	Age	Honey
1335/3/1	11	0.1
1365/3/1	11	0.1

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of honey for the child age group based on the 2 high-rate consumers is 0.1 kg y^{-1}

The observed 97.5th percentile rate based on 2 observations is 0.1 kg y^{-1}

Infant age group (0 - 5 years old)

No consumption data obtained for this food group.

Table 43. Children's and infants' consumption rates of wild fungi from the Hinkley Point terrestrial survey area (kg y^{-1})

Child age group (6 - 15 years old)

Person ID number	Age	Mushrooms
1306/9/1	9	0.1
1306/10/1	6	0.1

Notes

Emboldened observations are the high-rate consumers

The mean consumption rate of wild fungi for the child age group based on the 2 high-rate consumers is 0.1 kg y^{-1}

The observed 97.5th percentile rate based on 2 observations is 0.1 kg y^{-1}

Infant age group (0 - 5 years old)

No consumption data obtained for this food group.

Table 44. Percentage contribution each food type makes to its terrestrial food group for adults

Green vegetables	
Broccoli	26.5 %
Cabbage	22.3 %
Courgette	16.3 %
Kale	9.2 %
Lettuce	7.5 %
Cucumber	6.8 %
Cauliflower	5.5 %
Spinach	3.0 %
Asparagus	3.0 %

Other vegetables	
Tomato	37.7 %
Runner bean	31.9 %
Pea	9.9 %
Broad bean	8.2 %
Sweetcorn	7.0 %
French bean	4.3 %
Pepper	3.5 %
Squash	1.2 %
Aubergine	1.1 %
Mangetout	0.5 %
Chilli pepper	0.02 %

Root vegetables	
Onion	35.1 %
Carrot	31.3 %
Beetroot	13.3 %
Parsnip	7.7 %
Leek	3.6 %
Shallot	3.5 %
Celery	2.7 %
Garlic	1.0 %
Turnip	0.7 %
Radish	0.7 %
Celeriac	0.4 %
Fennel	0.03 %

Potato	
Potato	100.0 %

Domestic fruit	
Apple	42.6 %
Pear	17.1 %
Raspberry	15.0 %
Strawberry	11.0 %
Rhubarb	3.3 %
Redcurrant	2.8 %
Blackcurrant	1.8 %
Plum	1.8 %
Fig	1.3 %
Melon	1.2 %
Grape	0.7 %
Gooseberry	0.6 %
Loganberry	0.4 %
Peach	0.2 %
Damson	0.1 %

Milk	
Cows' milk	100.0 %

Cattle meat	
Beef	100.0 %

Pig meat	
Pork	100.0 %

Sheep meat	
Lamb	68.5 %
Mutton	31.5 %

Poultry	
Chicken	52.3 %
Pheasant	39.7 %
Partridge	5.6 %
Pigeon	1.2 %
Duck	1.2 %

Eggs	
Chicken egg	77.0 %
Duck egg	22.7 %
Goose egg	0.3 %

Wild/free foods	
Blackberry	63.5 %
Hazel nut	20.6 %
Damson	14.3 %
Elderberry	1.6 %

Rabbits/hares	
Rabbit	100.0 %

Honey	
Honey	100.0 %

Wild fungi	
Mushroom	100.0 %

Goat meat	
Goat	100.0 %

Notes

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

Table 45. Direct radiation occupancy rates for adults and children in the Hinkley Point area (h y^{-1})

Person ID number	Main activity	Indoor occupancy	Outdoor occupancy	Total occupancy
Within the nuclear licensed site boundary				
1704/1/1	Working	-	203	203[a]
0 to 0.25 km zone				
1207/1/1	Angling	-	209	209
1207/2/1	Angling	-	209	209
1607/1/1	Wildfowling and walking	-	48	48
1201/2/1	Farming	-	26	26
>0.25 to 0.5 km zone				
1369/1/1	Farming	-	34	34
>0.5 to 1.1 km zone				
1407/1/1	Residing	8277	405	8682
1334/1/1	Residing	8030	365	8395
1411/2/1	Residing	7642	418	8060
1658/1/1	Residing	7875	-	7875
1411/1/1	Residing	6831	688	7519
1411/3/1	Residing	6487	1032	7519
1411/4/1	Residing	6487	1032	7519
1239/1/1	Residing	6297	816	7113
1239/2/1	Residing	5644	1469	7113
1380/2/1	Residing	6143	805	6948
1333/1/1	Residing	5961	837	6798
1333/2/1	Residing	5961	837	6798
1380/1/1	Residing	5618	805	6422
1706/1/1	Transient workforce at Hinkley Point C	4044	948	4992
1706/2/1	Transient workforce at Hinkley Point C	4044	948	4992
1343/1/1	Residing	3843	829	4672
1343/2/1	Residing	3843	829	4672
1411/5/1	Residing	4023	626	4648
1204/1/1	Farming	-	32	32
1641/1/1	Angling and bait digging	-	30	30
1641/2/1	Angling and bait digging	-	30	30

Notes

[a] This person spent 75% of their time within the nuclear licensed site boundary and 25% in the 0 - 0.25 km zone.

Table 46. Analysis of direct radiation occupancy rates for adults and children in the Hinkley Point area (h y $^{-1}$)

Within the site boundary	
Number of hours	**Number of observations**
>8000 to 8760	0
>7000 to 8000	0
>6000 to 7000	0
>5000 to 6000	0
>4000 to 5000	0
>3000 to 4000	0
>2000 to 3000	0
>1000 to 2000	0
0 to 1000	1[a]
0 to 8760	**1**

0 to 0.25 km zone	
Number of hours	**Number of observations**
>8000 to 8760	0
>7000 to 8000	0
>6000 to 7000	0
>5000 to 6000	0
>4000 to 5000	0
>3000 to 4000	0
>2000 to 3000	0
>1000 to 2000	0
0 to 1000	4
0 to 8760	**4**

>0.25 to 0.5 km zone	
Number of hours	**Number of observations**
>8000 to 8760	0
>7000 to 8000	0
>6000 to 7000	0
>5000 to 6000	0
>4000 to 5000	0
>3000 to 4000	0
>2000 to 3000	0
>1000 to 2000	0
0 to 1000	1
0 to 8760	**1**

>0.5 to 1.1 km zone	
Number of hours	**Number of observations**
>8000 to 8760	3
>7000 to 8000	6
>6000 to 7000	4
>5000 to 6000	0
>4000 to 5000	5
>3000 to 4000	0
>2000 to 3000	0
>1000 to 2000	0
0 to 1000	3
0 to 8760	**21**

Notes

[a] The observation spent 75% of their time within the nuclear licensed site area and 25% in the 0 - 0.25 km zone.

Table 47. Gamma dose rate measurements for the Hinkley Point direct radiation survey area (µGyh^{-1})

Residences

Location	Indoor substrate	Indoor gamma dose rate at 1m[a]	Outdoor substrate	Outdoor gamma dose rate at 1m[a]
Residence 1	Stone	0.072	Grass	0.070
Residence 2	Not taken	Not taken	Mud and stones	0.057
Residence 3	Concrete	0.061	Grass	0.070
Residence 4	Concrete	0.060	Grass	0.066
Residence 5	Stone	0.072	Grass	0.070
Residence 6	Stone	0.065	Grass	0.069
Residence 7	Concrete	0.066	Grass	0.068
Residence 8	Concrete	0.069	Grass	0.054

Backgrounds

	Location	National Grid Reference	Substrate	Gamma dose rate at 1m[a]
Background 1	Near Kilve	ST 145 442	Grass	0.075
Background 2	East of Stolford	ST 261 453	Grass	0.061
Background 3	South-East of Fiddington	ST 240 401	Grass	0.060

Notes

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

Table 48. Combinations of adult pathways for consideration in dose assessments in the Hinkley Point area

Combination number	Fish	Crustaceans	Molluscs	Wildfowl	Marine plants/algae	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	Goat meat	Intertidal occupancy over mud	Intertidal occupancy over mud and sand	Intertidal occupancy over mud, sand and stones	Intertidal occupancy over rock	Intertidal occupancy over sand	Intertidal occupancy over sand and stones	Intertidal occupancy over stones	Intertidal occupancy over boat on mud	Handling fishing gear	Handling sediment	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	X	X																							
2																						X	X												
3						X	X	X		X						X							X									X			
4						X	X	X	X	X						X			X				X												
5																										X						X			
6	X																										X				X				
7																							X			X	X				X				
8														X		X					X														
9																							X	X				X							
10	X	X	X		X	X	X	X	X	X												X					X			X					
11						X	X	X	X	X														X			X					X			
12	X																								X		X	X							
13	X																									X	X	X							
14																								X	X	X	X	X							
15	X	X																					X		X	X		X	X		X		X	X	X
16											X					X	X																	X	X
17							X			X							X						X											X	X
18						X	X		X	X	X						X																		
19						X				X					X		X																	X	X
20	X														X		X								X										
21									X		X	X	X		X	X	X			X															
22											X					X	X	X		X															
23							X	X	X			X	X			X	X			X															
24						X	X	X	X	X		X			X		X	X	X	X															
25												X	X	X	X		X			X															
26						X	X	X	X	X						X	X			X							X	X						X	X
27	X	X	X	X	X	X	X	X	X	X					X	X	X		X																
28				X	X	X	X	X								X	X	X																	
29				X		X	X	X								X	X	X					X					X							
30	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 the following pathways: domestic fruit, milk, cattle meat.

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

Person ID number	Fish	Crustaceans	Molluscs	Wildfowl	Marine plants/algae	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	Goat meat	Intertidal occupancy over mud	Intertidal occupancy over mud and sand	Intertidal occupancy over mud, sand and stones	Intertidal occupancy over rock	Intertidal occupancy over sand	Intertidal occupancy over sand and stones	Intertidal occupancy over stones	Intertidal occupancy over boat on mud	Handling fishing gear	Handling sediment	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
1201/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**29.7**	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1201/2/1	-	-	-	-	-	-	-	-	-	-	**365.0**	-	-	-	-	**29.7**	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
1202/1/1	-	-	-	-	-	6.0	12.8	**16.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1202/2/1	-	-	-	-	-	6.0	12.8	**16.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1203/1/1	-	-	-	-	-	2.3	22.3	**37.1**	**125.1**	**32.0**	-	**94.6**	-	-	6.1	-	**2.0**	**1.3**	**1.4**	**1.1**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1203/2/1	-	-	-	-	-	2.3	22.3	**37.1**	**125.1**	**32.0**	-	**94.6**	-	-	6.1	-	**2.0**	**1.3**	**1.4**	**1.1**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1204/1/1	-	-	-	-	-	3.0	-	-	-	2.2	-	-	-	-	2.7	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32
1204/2/1	-	-	-	-	-	3.0	-	-	-	2.2	-	-	-	-	2.7	23.8	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1205/1/1	-	-	-	-	-	-	-	-	-	6.4	**311.0**	**94.6**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1205/2/1	-	-	-	-	-	-	-	-	-	6.4	**414.6**	**94.6**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1206/1/1	-	-	-	-	-	-	-	-	-	-	103.7	29.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1206/2/1	-	-	-	-	-	-	-	-	-	-	103.7	29.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1207/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**209**	104	-	**209**	-	-	-	-	-	-	209
1207/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**209**	104	-	**209**	-	-	-	-	-	-	209
1210/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	-	-	-	-	-	-	-
1210/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	-	-	-	-	-	-	-
1211/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-
1211/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-
1214/1/1	9.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	78	78	**182**	-	-	-	-	-	-	-
1214/2/1	9.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	78	78	**182**	-	-	-	-	-	-	-
1215/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**1152**	-	-	-	-	-	-	-	-	-
1219/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	209	-	-	-	-	-	-	-	-	-
1219/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	209	-	-	-	-	-	-	-	-	-
1223/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	-	-	-	4	-	-	-	-	-	-	-
1224/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1225/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	-	-	-	-	-	-	-
1228/1/1	-	-	-	-	-	5.0	6.5	4.9	8.2	2.0	-	-	-	-	-	**37.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1228/2/1	-	-	-	-	-	5.0	6.5	4.9	8.2	2.0	-	-	-	-	-	**37.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1232/1/1	-	-	-	1.3	-	-	-	-	-	-	-	-	-	-	5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1233/1/1	-	-	-	-	-	3.2	3.1	0.8	4.1	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1233/2/1	-	-	-	-	-	3.2	3.1	0.8	4.1	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1233/3/1	-	-	-	-	-	3.2	3.1	0.8	4.1	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1233/4/1	-	-	-	-	-	3.2	3.1	0.8	4.1	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1236/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	425	-	-	-	-	-	-	-	-	-
1238/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	233	-	116	-	-	-	-	-	-	-
1239/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.8	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6297	816
1239/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.8	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5644	1469
1244/1/1	-	-	-	-	-	**30.6**	15.1	5.0	3.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1244/2/1	-	-	-	-	-	**30.6**	15.1	5.0	3.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Person ID number	Fish	Crustaceans	Molluscs	Wildfowl	Marine plants/algae	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	Goat meat	Intertidal occupancy over mud	Intertidal occupancy over mud and sand	Intertidal occupancy over mud, sand and stones	Intertidal occupancy over rock	Intertidal occupancy over sand	Intertidal occupancy over sand and stones	Intertidal occupancy over stones	Intertidal occupancy over boat on mud	Handling fishing gear	Handling sediment	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
1244/3/1	-	-	-	-	-	**30.6**	15.1	5.0	3.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1244/4/1	-	-	-	-	-	5.1	2.5	0.8	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1244/5/1	-	-	-	-	-	5.1	2.5	0.8	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1245/1/1	-	-	-	-	-	**21.5**	17.2	**24.0**	32.2	9.4	-	-	-	-	-	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1245/2/1	-	-	-	-	-	**21.5**	17.2	**24.0**	32.2	9.4	-	-	-	-	-	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1247/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1247/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1248/1/1	-	-	-	-	-	-	-	-	-	-	-	**63.1**	**16.9**	**11.3**	1.5	-	0.5	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1248/2/1	-	-	-	-	-	-	-	-	-	-	-	**63.1**	**16.9**	**11.3**	1.5	-	0.5	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1248/3/1	-	-	-	-	-	-	-	-	-	-	-	**63.1**	**16.9**	**11.3**	1.5	-	0.5	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1252/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**1.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1252/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**1.4**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1262/4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1263/1/1	-	-	-	-	-	-	-	-	-	-	-	**47.3**	-	**5.7**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1263/2/1	-	-	-	-	-	-	-	-	-	-	-	**47.3**	-	**5.7**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1263/3/1	-	-	-	-	-	-	-	-	-	-	-	**47.3**	-	**5.7**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1263/4/1	-	-	-	-	-	-	-	-	-	-	-	**47.3**	-	**5.7**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1264/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**4.7**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1264/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**4.7**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1264/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**4.7**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1266/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.2	**2.0**	**1.1**	-	**2.4**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1266/2/1	-	-	-	-	-	-	-	-	-	-	**365.0**	-	-	-	-	7.6	**2.0**	**1.1**	-	**2.4**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1266/4/1	-	-	-	-	-	-	-	-	-	-	**365.0**	-	-	-	-	7.6	**2.0**	**1.1**	-	**2.4**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1266/5/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1267/1/1	**54.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	**19.6**	-	**1.8**	-	-	-	-	-	-	-	**326**	-	-	-	-	-	-	-	-	-
1267/2/1	**54.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	**19.6**	-	**1.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1268/1/1	-	-	-	**2.7**	-	**11.3**	14.7	5.4	-	-	-	-	-	-	-	22.8	0.5	**0.9**	-	-	-	-	1	-	-	-	-	**182**	-	-	-	-	-	-	-
1268/2/1	-	-	-	**2.7**	**0.5**	**11.3**	14.7	5.4	-	-	-	-	-	-	-	22.8	0.5	**0.9**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1270/1/1	-	-	-	-	-	-	5.0	4.0	15.0	16.0	-	-	-	-	-	**35.7**	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1270/2/1	-	-	-	-	-	-	5.0	4.0	15.0	16.0	-	-	-	-	-	**35.7**	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1271/1/1	-	-	-	-	-	-	5.0	4.0	15.0	16.0	-	-	-	-	-	**35.7**	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1271/2/1	-	-	-	-	-	-	5.0	4.0	15.0	16.0	-	-	-	-	-	**35.7**	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1272/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**262**	-	-	-	-	-	-	-
1272/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**262**	-	-	-	-	-	-	-
1273/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	144	-	-	-	-	-	-	-	-
1273/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	144	-	-	-	-	-	-	-	-
1274/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	365	-	-	-	-	-	-	-	-
1277/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**274**	-	-	-	-	-	-	-
1277/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**274**	-	-	-	-	-	-	-

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

Person ID number	Fish	Crustaceans	Molluscs	Wildfowl	Marine plants/algae	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	Goat meat	Intertidal occupancy over mud	Intertidal occupancy over mud and sand	Intertidal occupancy over mud, sand and stones	Intertidal occupancy over rock	Intertidal occupancy over sand	Intertidal occupancy over sand and stones	Intertidal occupancy over stones	Intertidal occupancy over boat on mud	Handling fishing gear	Handling sediment	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
1278/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**365**	-	-	-	-	-	-	-	-
1280/1/1	22.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	-	139	**139**	-	-	-	-	-	-	-
1280/2/1	22.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	-	139	**139**	-	-	-	-	-	-	-
1280/3/1	19.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	-	-	-	24	-	-	-	-
1280/4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	94	-	**187**	**187**	-	-	-	-	-	-	-
1280/4/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	94	-	**187**	**187**	-	-	-	-	-	-	-
1280/4/3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	94	-	**187**	**187**	-	-	-	-	-	-	-
1280/4/4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	94	-	**187**	**187**	-	-	-	-	-	-	-
1280/4/5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	94	-	**187**	**187**	-	-	-	-	-	-	-
1281/1/1	**25.7**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	137	137	**273**	-	-	-	-	-	-	-
1281/2/1	**25.7**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	137	137	**273**	-	-	-	-	-	-	-
1283/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-
1283/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-
1284/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**287**	-	-	-	-	-	-	-	-
1286/1/1	16.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	216	-	-	-
1288/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	-	-	393	139	-	-	-	**166**	-	-	-	-
1288/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	139	-	-	-	-	-	-	-	-
1289/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	303	-	-	-	-	-	-	-	-	-
1289/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	303	-	-	-	-	-	-	-	-	-
1290/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	48	-	-	-	-	-	-	-	-	-
1290/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	48	-	-	-	-	-	-	-	-	-
1292/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	238	-	**158**	-	-	-	-	-	-	-
1292/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	238	-	**158**	-	-	-	-	-	-	-
1292/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	115	57	115	-	-	-	-	-	-	-
1292/3/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	115	57	115	-	-	-	-	-	-	-
1292/3/3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	115	57	115	-	-	-	-	-	-	-
1293/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-
1295/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**288**	-	-	-	-	-	-	-	-
1296/1/1	**26.7**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**313**	**156**	-	-	-	-	-	-	-
1297/1/1	4.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	626	-	-	-
1299/1/1	4.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	626	-	-	-
1300/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	3	-	-	-
1300/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	3	-	-	-
1300/4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	3	-	-	-
1300/5/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	3	-	-	-
1301/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	-	-	-	-	-	-	-	-	-
1301/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	-	-	-	-	-	-	-	-	-
1302/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	-	-	-
1302/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	-	-	-

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

Person ID number	Fish	Crustaceans	Molluscs	Wildfowl	Marine plants/algae	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	Goat meat	Intertidal occupancy over mud	Intertidal occupancy over mud and sand	Intertidal occupancy over mud, sand and stones	Intertidal occupancy over rock	Intertidal occupancy over sand	Intertidal occupancy over sand and stones	Intertidal occupancy over stones	Intertidal occupancy over boat on mud	Handling fishing gear	Handling sediment	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
1303/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**365**	-	-	-	-	-	-	-
1304/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	**272**	-	-	-	-	-	-	-
1305/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	168	**168**	-	-	-	-	-	-	-
1305/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	168	**168**	-	-	-	-	-	-	-
1306/1/1	-	-	-	-	-	-	11.3	4.5	**52.6**	-	-	19.9	**10.7**	-	-	2.2	0.2	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1306/2/1	-	-	-	-	-	-	11.3	4.5	**52.6**	-	-	19.9	**10.7**	-	-	2.2	0.2	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1306/3/1	-	-	-	-	-	-	-	-	**52.6**	-	8.3	19.9	**10.7**	-	-	-	0.2	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1306/4/1	-	-	-	-	-	-	-	-	**52.6**	-	8.3	19.9	**10.7**	-	-	-	0.2	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1306/5/1	-	-	-	-	-	-	-	-	**52.6**	-	8.3	19.9	**10.7**	-	-	-	0.2	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1306/6/1	-	-	-	-	-	-	-	-	**52.6**	-	8.3	19.9	**10.7**	-	-	-	0.2	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1306/7/1	-	-	-	-	-	-	-	-	**52.6**	-	8.3	19.9	**10.7**	-	1.3	2.2	0.2	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1306/8/1	-	-	-	-	-	-	-	-	**52.6**	-	8.3	19.9	**10.7**	-	1.3	2.2	0.2	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1307/1/1	15.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1307/2/1	15.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1308/1/1	5.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	-	-	-	24	-	-	-
1308/2/1	5.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	-	-	-	24	-	-	-
1309/1/1	9.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1309/2/1	9.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1311/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	420	-	-	-	-	-	-	-	-
1312/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	118	-	-	-	-	-	-	-	-
1313/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**1284**	-	-	-	-	-	-	-	-
1313/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**1284**	-	-	-	-	-	-	-	-
1316/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	469	-	-	-	-	-	-	-	-
1316/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	469	-	-	-	-	-	-	-	-
1317/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**447**	-	-	-	-	-	-	-
1317/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**447**	-	-	-	-	-	-	-
1317/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	93	-	-	-	-	-	-	-
1318/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	469	-	-	-	-	-	-	-	-
1319/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/1/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/1/3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/1/4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/1/5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/1/6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/1/7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/1/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/1/9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/1/10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/1/11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-

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

Person ID number	Fish	Crustaceans	Molluscs	Wildfowl	Marine plants/algae	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	Goat meat	Intertidal occupancy over mud	Intertidal occupancy over mud and sand	Intertidal occupancy over mud, sand and stones	Intertidal occupancy over rock	Intertidal occupancy over sand	Intertidal occupancy over sand and stones	Intertidal occupancy over stones	Intertidal occupancy over boat on mud	Handling fishing gear	Handling sediment	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
1319/1/12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/1/13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/1/14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/1/15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/1/16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/1/17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/2/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/2/3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1322/1/1	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**313**	-	-	-	-	-	-	-	52	-	-	-	-
1323/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	164	-	-	-	-	-	-	-	-	-
1324/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	704	-	-	-	-	-	-	-	-	-
1325/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	365	-	-	-	-	-	-	-	-	-
1327/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	-	-	-
1327/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	230	-	-	-
1330/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72	-	-	-	-	-	-	-	-	-	-	-	-
1330/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72	-	-	-	-	-	-	-	-	-	-	-	-
1333/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	-	-	-	-	5961	837	
1333/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	-	-	-	-	5961	837	
1334/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**365**	-	-	-	-	-	-	-	-	8030	365	
1335/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1335/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1338/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	**13.0**	-	17.8	-	-	-	-	**3.4**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1338/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	**13.0**	-	17.8	-	-	-	-	**3.4**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1339/1/1	-	-	-	-	**1.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**367**	-	-	-	-	-	-	-	-	-	-	-	-
1339/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	-	-	-	-	-	-	-	-	-	-	-	-
1339/3/1	-	-	-	-	**1.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1339/4/1	-	-	-	-	**1.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1340/1/1	**33.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	129	-	-	-	-	26	-	-	-	-
1341/1/1	-	-	-	-	-	-	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-	-	-	-	-
1341/2/1	-	-	-	-	-	-	4.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-
1343/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3843	829	
1343/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3843	829	
1344/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**2450**	-	-	-	-	-	-	-	-	-
1347/13/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-	
1347/14/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-	
1347/15/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-	
1347/16/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-	
1347/17/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-	

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

Person ID number	Fish	Crustaceans	Molluscs	Wildfowl	Marine plants/algae	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	Goat meat	Intertidal occupancy over mud	Intertidal occupancy over mud and sand	Intertidal occupancy over mud, sand and stones	Intertidal occupancy over rock	Intertidal occupancy over sand	Intertidal occupancy over sand and stones	Intertidal occupancy over stones	Intertidal occupancy over boat on mud	Handling fishing gear	Handling sediment	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
1354/1/1	7.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	**390**	-	-	**104**	-	-	-	-
1357/1/1	-	-	-	-	-	3.2	8.1	10.0	16.4	4.9	-	-	-	-	-	-	-	-	-	-	-	-	-	70	-	-	-	**139**	-	-	-	2	-	-	-
1357/2/1	-	-	-	-	-	3.2	8.1	10.0	16.4	4.9	-	-	-	-	-	-	-	-	-	-	-	-	-	70	-	-	-	**139**	-	-	-	-	-	-	-
1358/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	26	104	52	104	-	-	-	-	-	-	-
1358/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	26	104	52	104	-	-	-	-	-	-	-
1358/3/1	**28.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1361/1/1	-	-	-	-	-	6.9	**80.2**	-	29.8	11.6	52.1	-	-	-	-	-	**4.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1361/2/1	-	-	-	-	-	6.9	**80.2**	-	29.8	11.6	52.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1361/5/1	-	-	-	-	-	-	-	-	-	-	91.3	-	-	-	-	-	**4.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1361/6/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**4.0**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1365/1/1	-	-	-	-	-	6.5	15.0	1.3	7.8	5.2	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1365/2/1	-	-	-	-	-	6.5	15.0	1.3	7.8	5.2	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1368/1/1	-	-	-	-	-	**23.7**	11.2	**36.6**	-	18.8	-	-	-	-	-	23.3	-	-	-	-	-	-	58	-	-	-	-	-	-	-	-	20	-	-	-
1368/2/1	-	-	-	-	-	**23.7**	11.2	**36.6**	-	18.8	-	-	-	-	-	23.3	-	-	-	-	-	-	58	-	-	-	-	-	-	-	-	20	-	-	-
1369/1/1	-	-	-	-	-	-	1.7	-	-	3.4	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	34
1369/2/1	-	-	-	-	-	-	1.7	-	-	3.4	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-
1380/1/1	-	-	-	-	-	8.1	24.7	3.4	7.3	**31.1**	-	-	-	-	-	2.7	**3.0**	-	-	0.8	-	-	-	-	-	-	69	**138**	-	-	-	-	-	5618	805
1380/2/1	-	-	-	-	-	**16.6**	24.7	3.4	7.3	**38.1**	-	-	-	-	-	2.7	**3.0**	-	-	0.8	-	-	-	-	-	-	43	87	-	-	-	-	-	6143	805
1402/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**200**	-	-	-	-	-	-	-	-
1402/1/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**200**	-	-	-	-	-	-	-	-
1402/1/3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**200**	-	-	-	-	-	-	-	-
1402/1/4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**200**	-	-	-	-	-	-	-	-
1402/1/5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**200**	-	-	-	-	-	-	-	-
1402/1/6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**200**	-	-	-	-	-	-	-	-
1402/1/7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**200**	-	-	-	-	-	-	-	-
1402/1/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**200**	-	-	-	-	-	-	-	-
1402/1/9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**200**	-	-	-	-	-	-	-	-
1402/1/10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**200**	-	-	-	-	-	-	-	-
1402/2/1	**75.6**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	700	-	-	-	-	-	-	-	-	-
1402/3/1	**75.6**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1402/4/1	**75.6**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1403/1/1	23.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	209	-	-	-	-	-	-	131	-	-
1405/1/1	-	-	-	-	-	3.8	8.4	2.9	-	**46.1**	-	-	-	-	-	-	-	-	-	-	-	-	-	**123**	-	-	-	-	-	-	-	-	-	-	-
1405/2/1	-	-	-	-	-	3.8	8.4	2.9	-	**46.1**	-	-	-	-	-	-	-	-	-	-	-	-	-	**123**	-	-	-	-	-	-	-	-	-	-	-
1406/1/1	-	-	-	-	-	**19.0**	**50.5**	**24.4**	22.8	**58.0**	-	-	-	-	-	0.04	-	-	**0.7**	-	-	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-
1406/2/1	-	-	-	-	-	**19.0**	**50.5**	**24.4**	22.8	**58.0**	-	-	-	-	-	0.04	-	-	**0.7**	-	-	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-
1407/1/1	-	-	-	-	-	-	20.5	-	-	10.9	-	-	-	-	-	-	**2.0**	-	-	-	-	-	**546**	-	-	-	-	-	-	-	-	-	-	8277	405
1410/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**42.2**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1411/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**48.6**	-	-	-	-	-	-	-	-	-	-	36	36	-	-	-	-	-	6831	688

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

Person ID number	Fish	Crustaceans	Molluscs	Wildfowl	Marine plants/algae	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	Goat meat	Intertidal occupancy over mud	Intertidal occupancy over mud and sand	Intertidal occupancy over mud, sand and stones	Intertidal occupancy over rock	Intertidal occupancy over sand	Intertidal occupancy over sand and stones	Intertidal occupancy over stones	Intertidal occupancy over boat on mud	Handling fishing gear	Handling sediment	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
1411/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**48.6**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7642	418
1411/5/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4023	626
1412/1/1	**36.7**	**20.6**	**0.7**	1.3	**0.9**	**15.0**	12.7	10.8	15.2	6.4	-	-	-	-	2.7	17.8	0.9	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1412/2/1	**29.5**	**10.4**	-	1.3	-	**15.0**	12.7	10.8	15.2	6.4	-	-	-	-	2.7	17.8	0.9	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1412/3/1	1.7	**9.2**	**0.7**	-	**0.7**	**15.0**	12.7	10.8	15.2	6.4	-	-	-	-	-	-	-	-	-	-	-	**912**	-	-	-	-	-	10	-	**912**	-	-	-	-	-
1412/4/1	1.7	**9.2**	-	-	-	**15.0**	12.7	10.8	15.2	6.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1412/5/1	-	-	-	-	-	**15.0**	12.7	10.8	15.2	6.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1412/6/1	1.7	**9.2**	-	-	-	**15.0**	12.7	10.8	15.2	6.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1413/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	639	-	-	-	313	-	-
1414/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**2083**	-	-	-	-	-	-	-	-	-
1414/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**2083**	-	-	-	-	-	-	-	-	-
1553/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**2088**	-	-	-	4176	-	-
1554/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**2878**	-	-	-	5757	-	-
1554/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**2878**	-	-	-	5757	-	-
1607/1/1	13.7	0.7	-	**4.8**	0.3	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	**1.4**	-	-	22	51	-	-	-	-	-	-	41	-	-	-	48
1607/2/1	13.7	0.7	-	**4.8**	0.3	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1638/1/20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	**212**	-	-	-	-	-	-	-	-	-	-	-	-
1640/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-	-
1640/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	-	-	-	-	-	-
1640/2/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	-	-	-	-	-	-

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

Person ID number	Fish	Crustaceans	Molluscs	Wildfowl	Marine plants/algae	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	Goat meat	Intertidal occupancy over mud	Intertidal occupancy over mud and sand	Intertidal occupancy over mud, sand and stones	Intertidal occupancy over rock	Intertidal occupancy over sand	Intertidal occupancy over sand and stones	Intertidal occupancy over stones	Intertidal occupancy over boat on mud	Handling fishing gear	Handling sediment	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
1640/2/3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	-	-	-	-	-	-
1641/1/1	4.0	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-	25	25	-	50	365	-	20	-	913	-	30
1641/2/1	4.0	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-	25	25	-	50	209	-	20	-	496	-	30
1652/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**82.1**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1652/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1704/1/1	0	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	196[a]
1706/1/1	0.8	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4044	948
1706/2/1	0.8	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4044	948

Notes

Emboldened observations are the high-rate individuals

[a] Outdoor occupancy data for ID1704/1/1 was 75% inside the licensed area and 25% in the 0 - 0.25 km zone.

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

Person ID number	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Intertidal occupancy over mud and sand	Intertidal occupancy over mud, sand and stones	Intertidal occupancy over rock	Intertidal occupancy over sand	Intertidal occupancy over sand and stones	Intertidal occupancy over stones	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
Child age group (6 - 15 years old)																							
1205/3/1	-	-	-	-	**6.4**	**311.0**	**47.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1205/4/1	-	-	-	-	**6.4**	**311.0**	**47.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1206/4/1	-	-	-	-	-	103.7	**21.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1210/4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	**104**	-	-	-	-	-	-	-	-	-
1225/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	-	-	-	-
1266/3/1	-	-	-	-	-	**365.0**	-	-	10.2	**2.0**	**1.1**	-	-	-	-	-	-	-	-	-	-	-	-
1273/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**144**	-	-	-	-	-	-
1283/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-
1283/4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-
1290/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**12**	48	-	-	-	-	-	-
1300/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**104**	-	-	3	-	-	-
1301/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	-	-	-	-	-	-
1301/4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	-	-	-	-	-	-
1305/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**168**	**168**	-	-	-	-	-
1305/4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**168**	**168**	-	-	-	-	-
1306/9/1	-	-	-	**39.5**	-	-	14.9	**8.0**	-	0.2	-	-	**0.1**	-	-	-	-	-	-	-	-	-	-
1306/10/1	-	-	-	**39.5**	-	-	14.9	**8.0**	-	0.2	-	-	**0.1**	-	-	-	-	-	-	-	-	-	-
1313/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**295**	-	-	-	-	-	-
1313/4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**295**	-	-	-	-	-	-
1313/5/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**295**	-	-	-	-	-	-
1330/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	**72**	-	-	-	-	-	-	-	-	-
1335/3/1	-	-	-	-	-	-	-	-	-	-	-	**0.1**	-	-	-	-	-	-	-	-	-	-	-
1341/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-
1341/4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-
1347/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-

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

Person ID number	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Intertidal occupancy over mud and sand	Intertidal occupancy over mud, sand and stones	Intertidal occupancy over rock	Intertidal occupancy over sand	Intertidal occupancy over sand and stones	Intertidal occupancy over stones	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
1347/1/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/4/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/5/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/5/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/6/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/7/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/8/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/8/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/9/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/9/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/10/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/11/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/12/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1357/3/1	**3.2**	8.1	**10.0**	**16.4**	**4.9**	-	-	-	-	-	-	-	-	-	**70**	-	-	-	**139**	2	-	-	-
1361/3/1	**5.2**	**60.2**	-	**22.3**	**8.7**	39.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1361/4/1	**5.2**	**60.2**	-	**22.3**	**8.7**	39.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1365/3/1	**6.5**	15.0	1.3	7.8	**5.2**	-	-	-	-	-	-	**0.1**	-	-	-	-	-	-	-	-	-	-	-
1411/3/1	-	-	-	-	-	-	-	-	**36.4**	-	-	-	-	-	-	-	-	36	36	-	-	6487	1032
1411/4/1	-	-	-	-	-	-	-	-	**36.4**	-	-	-	-	-	-	-	-	36	36	-	-	6487	1032
Infant age group (0 - 5 years old)																							
1206/3/1	-	-	-	-	-	**103.7**	**14.6**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1210/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	**104**	-	-	-	-	-	-	-	-	-
1223/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	4	**4**	-	-	-	**4**	-	-	-	-

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

Person ID number	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Eggs	Wild/free foods	Rabbits/hares	Honey	Wild fungi	Intertidal occupancy over mud and sand	Intertidal occupancy over mud, sand and stones	Intertidal occupancy over rock	Intertidal occupancy over sand	Intertidal occupancy over sand and stones	Intertidal occupancy over stones	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
1273/4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**144**	-	-	-	-	-	-
1290/4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**12**	**48**	-	-	-	-	-	-
1330/4/1	-	-	-	-	-	-	-	-	-	-	-	-	-	**72**	-	-	-	-	-	-	-	-	-
1341/5/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**12**	-	-	-	-

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
None identified	None identified	Not applicable

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 age ranges within the age 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 Hinkley Point area, for use in foetal assessments

Person ID number	Fish	Crustaceans	Wildfowl	Marine plants/algae	Green vegetables	Other vegetables	Root vegetables	Potato	Domestic fruit	Milk	Cattle meat	Pig meat	Sheep meat	Poultry	Eggs	Wild/free foods	Rabbits/hares	Wild fungi	Goat meat	Intertidal occupancy over mud and sand	Intertidal occupancy over mud, sand and stones	Intertidal occupancy over rock	Intertidal occupancy over sand	Intertidal occupancy over sand and stones	Intertidal occupancy over stones	Intertidal occupancy over boat on mud	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
1205/1/1	-	-	-	-	-	-	-	-	6.4	311.0	94.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1206/2/1	-	-	-	-	-	-	-	-	-	103.7	29.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1210/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	-	-	-	-	-
1211/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-
1223/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	-	-	-	4	-	-	-	-	-
1233/4/1	-	-	-	-	3.2	3.1	0.8	4.1	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1244/3/1	-	-	-	-	30.6	15.1	5.0	3.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1262/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1266/2/1	-	-	-	-	-	-	-	-	-	365.0	-	-	-	-	7.6	2.0	1.1	2.4	-	-	-	-	-	-	-	-	-	-	-	-
1266/5/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1268/2/1	-	-	2.7	0.5	11.3	14.7	5.4	-	-	-	-	-	-	-	22.8	0.5	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-
1280/2/1	22.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	-	139	139	-	-	-	-	-
1283/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-
1290/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	48	-	-	-	-	-	-	-
1300/5/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	3	-	-	-
1302/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	-
1305/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	168	168	-	-	-	-	-	-
1306/4/1	-	-	-	-	-	-	-	52.6	-	8.3	19.9	10.7	-	-	-	0.2	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-
1306/6/1	-	-	-	-	-	-	-	52.6	-	8.3	19.9	10.7	-	-	-	0.2	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-
1306/8/1	-	-	-	-	-	-	-	52.6	-	8.3	19.9	10.7	-	1.3	2.2	0.2	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-
1313/3/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	295	-	-	-	-	-	-	-
1319/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/2/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1319/2/3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	151	-	-
1323/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	164	-	-	-	-	-	-	-
1330/2/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72	-	-	-	-	-	-	-	-	-	-
1338/2/1	-	-	-	-	-	-	-	-	-	-	-	-	13.0	-	17.8	-	-	-	3.4	-	-	-	-	-	-	-	-	-	-	-
1339/4/1	-	-	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1344/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2450	-	-	-	-	-	-	-
1347/12/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/14/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1347/16/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-
1358/3/1	28.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1368/2/1	-	-	-	-	23.7	11.2	36.6	-	18.8	-	-	-	-	-	23.3	-	-	-	-	58	-	-	-	-	-	-	20	-	-	-
1369/2/1	-	-	-	-	-	1.7	-	-	3.4	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	18	-	-	-	-	-
1402/3/1	75.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1411/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48.6	-	-	-	-	-	-	-	-	36	36	-	-	-	6831	688
1412/5/1	-	-	-	-	15.0	12.7	10.8	15.2	6.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1554/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2878	-	5757	-	-
1607/2/1	13.7	0.7	4.8	0.3	-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1706/1/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4044	948

Notes

[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 Hinkley Point area for use in the assessment of total dose

Profile Name	Number of individuals	Pathway Name: Crustacea	Direct	Eggs	Fish - Sea	Fruit - Domestic	Fruit and nuts - Wild	Gamma ext - Houseboat	Gamma ext - Sediments	Honey	Marine plants/algae	Meat - Cow	Meat - Game	Meat - Pig	Meat - Poultry	Meat - Sheep	Meat - Wildfowl	Milk	Mollusca	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							7, 8	7	7				
Units:		kg	-	kg	kg	kg	kg	h	h	kg	kg	kg	kg	kg	kg	kg	kg	l	kg	kg	h	h	h	h	h	kg	kg	kg	kg
Crustacean Consumers	5	11.7	-	7.1	14.2	6.4	0.36	-	180	0.09	0.32	-	-	-	1.1	-	0.54	-	0.27	-	-	-	-	-	-	15.0	12.7	15.2	10.8
Occupants for Direct Radiation	25	0.12	1.00	6.7	0.87	4.5	0.54	23	94	-	0.01	-	-	-	0.11	-	0.19	14.6	-	0.11	-	56	28	1	4230	1.1	2.9	0.58	0.27
Egg Consumers	12	-	0.25	41.5	-	5.7	0.23	-	6	-	-	-	-	-	-	-	-	30.4	-	-	-	-	2	-	1300	0.83	2.8	6.4	2.1
Sea Fish Consumers	12	2.6	-	3.0	45.1	1.1	0.44	-	200	0.04	0.08	-	-	-	3.7	-	0.22	-	0.06	-	-	-	-	-	-	2.5	2.1	2.5	1.8
Domestic Fruit Consumers	9	-	0.33	0.61	-	40.9	1.3	-	68	0.45	-	21.0	0.30	-	1.3	-	-	-	-	0.41	-	-	-	-	2360	8.3	23.5	34.5	15.1
Wild Fruit and Nut Consumers	16	-	0.19	1.9	6.8	9.7	3.0	-	55	0.17	-	11.8	0.38	-	3.2	-	-	54.6	-	0.68	-	-	-	-	1380	2.3	12.2	18.4	5.1
Houseboat Occupants	3	-	-	-	-	-	-	2610	-	-	-	-	-	-	-	-	-	-	-	-	-	5230	-	-	-	-	-	-	-
Occupants over Sediment	7	1.3	-	-	0.24	0.92	-	-	1610	-	0.10	-	-	-	-	-	-	-	0.10	-	-	-	-	-	-	2.1	1.8	2.2	1.5
Honey Consumers	6	-	-	0.01	-	30.0	0.67	-	5	1.1	-	31.5	0.45	-	2.0	-	-	-	-	0.37	-	-	-	-	-	7.1	24.3	49.3	20.5
Consumers of Marine Plants and Algae	6	5.0	-	6.8	6.4	2.1	0.23	-	210	0.04	0.84	-	0.15	-	0.45	-	0.67	-	0.23	-	-	-	-	-	-	6.9	6.7	5.1	4.5
Cattle Meat Consumers	11	-	-	-	-	7.0	0.49	-	-	0.25	-	68.8	0.25	4.6	1.5	5.1	-	66.0	-	0.32	-	-	-	-	-	0.42	4.1	22.8	6.7
Game Meat Consumers	7	-	-	10.1	-	9.1	1.6	-	26	0.39	0.06	27.0	1.1	-	1.7	-	0.77	104.3	-	1.3	-	-	-	-	-	3.9	10.6	35.8	12.1
Pig Meat Consumers	11	-	-	0.81	-	-	0.28	-	-	-	-	31.7	-	12.3	0.66	3.1	-	4.5	-	0.26	-	-	-	-	-	-	2.1	38.3	0.82
Poultry Meat Consumers	2	-	-	-	54.5	-	1.8	-	-	-	-	-	-	-	19.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sheep Meat Consumers	9	-	-	4.0	-	-	0.15	-	-	-	-	42.0	-	5.6	0.50	9.9	-	-	-	0.15	-	-	-	-	-	-	-	-	-
Wildfowl Consumers	4	0.33	0.25	11.4	6.9	-	0.57	-	64	-	0.24	-	0.45	-	-	-	3.8	-	-	0.34	-	-	12	-	-	5.7	7.3	-	2.7
Milk Consumers	5	-	0.20	9.0	-	2.6	0.90	-	-	-	-	37.8	0.45	-	-	-	-	364.1	-	0.96	-	-	5	-	-	-	-	-	-
Mollusc Consumers	2	14.9	-	8.9	19.2	6.4	0.45	-	460	0.11	0.79	-	-	-	1.3	-	0.67	-	0.68	-	-	-	-	-	-	15.0	12.7	15.2	10.8
Mushroom Consumers	6	0.11	0.17	4.2	2.3	10.7	1.8	-	12	0.45	0.04	31.5	1.0	-	2.0	-	0.81	121.7	-	1.8	-	-	8	-	-	0.77	7.4	41.7	12.4
Occupants In Water	2	-	-	23.3	-	18.8	-	-	58	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	23.7	11.2	-	36.6
Occupants On Water	3	-	-	-	-	-	-	2610	-	-	-	-	-	-	-	-	-	-	-	-	-	5230	-	-	-	-	-	-	-
Local Inhabitants (0 - 0.25km)	3	-	1.00	-	-	-	-	-	210	-	-	-	-	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-
Local Inhabitants (0.25 - 0.5km)	1	-	1.00	-	-	3.4	0.20	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	-	-	1.7	-	-
Local Inhabitants (0.5 - 1km)	16	-	1.00	8.6	-	6.7	0.70	-	91	-	-	-	-	-	-	-	-	-	-	0.09	-	-	-	-	6610	1.5	4.4	0.91	0.42
Green Vegetable Consumers	18	3.3	0.06	9.0	4.0	13.8	0.32	-	77	0.10	0.11	-	0.10	-	0.30	-	0.45	-	0.08	0.04	2	-	-	-	390	19.4	18.5	12.2	14.7
Other Domestic Vegetable Consumers	4	-	-	0.02	-	34.8	1.0	-	8	0.34	-	-	-	-	-	-	-	26.1	-	-	-	-	-	-	-	12.9	65.3	26.3	12.2
Potato Consumers	10	-	-	0.89	-	6.4	0.57	-	-	0.27	-	34.9	0.27	8.5	1.5	-	-	5.0	-	0.37	-	-	-	-	-	0.46	6.7	67.1	8.3
Root Vegetable Consumers	10	-	-	7.9	-	23.6	0.40	-	15	0.41	-	18.9	0.27	-	1.2	-	-	-	-	0.22	4	-	-	-	-	14.5	22.8	36.0	27.6

Notes

1. Expressed as the proportion of the profile members who are exposed to direct radiation.
2. 'Gamma external - Houseboat' includes occupancy over boat on mud.
3. 'Gamma external - Sediments' includes occupancy over mud; mud and sand; mud, sand and stones; sand; sand and stones; stones.
4. Marine plants and algae includes consumption of*Porphyra umbilicalis* , samphire and sea lettuce.
5. 'Meat - Game' includes consumption of rabbits/hares.
6. 'Meat - Sheep' includes consumption of goat meat.
7. Plume times are the sums of individuals' indoor and outdoor occupancy rates in each of the direct radiation zones.
8. Includes occupancy data for ID1704/1/1 who spends 75% inside the licensed area and 25% in the 0 - 0.25 km zone.

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 Hinkley Point area for use in the assessment of total dose

		Pathway Name																	
	Number of individuals	Direct	Eggs	Fruit - Domestic	Fruit and nuts - Wild	Gamma ext - Sediments	Honey	Meat - Cow	Meat - Game	Meat - Pig	Milk	Mushrooms	Occupancy IN water	Occupancy ON water	Plume (OUT; 0.5-1km)	Vegetables - Green	Vegetables - Other Domestic	Vegetables - Potatoes	Vegetables - Root
Notes:		1				2			3						4				
Profile Name	Units:	-	kg	kg	kg	h	kg	kg	kg	kg	l	kg	h	h	h	kg	kg	kg	kg
Occupants for Direct Radiation	**2**	1.00	36.4	-	-	72	-	-	-	-	-	-	-	-	7520	-	-	-	-
Egg Consumers	**2**	1.00	36.4	-	-	72	-	-	-	-	-	-	-	-	7520	-	-	-	-
Domestic Fruit Consumers	**6**	-	-	6.7	-	35	0.02	15.8	-	-	116.7	-	<1	-	-	3.3	23.9	11.5	1.9
Wild Fruit and Nut Consumers	**1**	-	10.2	-	2.0	-	-	-	1.1	-	365.0	-	-	-	-	-	-	-	-
Occupants over Sediment	**7**	-	-	0.69	-	270	-	-	-	-	-	-	<1	-	-	0.46	1.2	2.3	1.4
Honey Consumers	**2**	-	-	2.6	-	-	0.10	-	-	-	-	-	-	-	-	3.2	7.5	3.9	0.67
Cattle Meat Consumers	**3**	-	-	4.3	-	-	-	38.8	-	-	241.9	-	-	-	-	-	-	-	-
Game Meat Consumers	**1**	-	10.2	-	2.0	-	-	-	1.1	-	365.0	-	-	-	-	-	-	-	-
Pig Meat Consumers	**2**	-	-	-	0.16	-	-	14.9	-	8.0	-	0.14	-	-	-	-	-	39.5	-
Milk Consumers	**3**	-	3.4	4.3	0.67	-	-	31.5	0.37	-	329.0	-	-	-	-	-	-	-	-
Mushroom Consumers	**2**	-	-	-	0.16	-	-	14.9	-	8.0	-	0.14	-	-	-	-	-	39.5	-
Occupants In Water	**2**	-	-	2.4	-	160	-	-	-	-	-	-	3	-	-	1.6	4.0	8.2	5.0
Occupants On Water	**17**	-	-	-	-	-	-	-	-	-	-	-	-	210	-	-	-	-	-
Local Inhabitants (0.5 - 1km)	**2**	1.00	36.4	-	-	72	-	-	-	-	-	-	-	-	7520	-	-	-	-
Green Vegetable Consumers	**4**	-	-	6.8	-	52	0.02	-	-	-	19.6	-	<1	-	-	5.0	35.8	17.2	2.8
Other Domestic Vegetable Consumers	**2**	-	-	8.7	-	-	-	-	-	-	39.1	-	-	-	-	5.2	60.2	22.3	-
Potato Consumers	**5**	-	-	4.4	0.06	42	-	6.0	-	3.2	15.6	0.06	<1	-	-	2.7	25.7	28.0	2.0
Root Vegetable Consumers	**1**	-	-	4.9	-	210	-	-	-	-	-	-	2	-	-	3.2	8.1	16.4	10.0

Notes

1. Expressed as the proportion of the profile members who are exposed to direct radiation.
2. 'Gamma external - Sediments' includes occupancy over mud and sand; mud, sand and stones; sand; sand and stones; stones.
3. 'Meat - Game' includes consumption of rabbits/hares.
4. 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 8. Summary of profiles for the infant age group (0 - 5 years old) in the Hinkley Point area for use in the assessment of total dose

Profile Name	Number of individuals	Pathway Name: Gamma ext - Sediments	Meat - Cow	Milk
Notes:		1		
Units:		-	kg	l
Occupants over Sediment	4	92	-	-
Cattle Meat Consumers	1	-	14.6	103.7
Milk Consumers	1	-	14.6	103.7

Notes

1. 'Gamma external - Sediments' includes occupancy over mud and sand; mud, sand and stones; sand; sand and stones; stones.
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 Hinkley Point area, for use in the assessment of total dose to the foetus

Profile Name	Number of individuals	Pathway Name: Crustacea	Direct	Eggs	Fish - Sea	Fruit - Domestic	Fruit and nuts - Wild	Gamma ext - Houseboat	Gamma ext - Sediments	Marine plants/algae	Meat - Cow	Meat - Game	Meat - Pig	Meat - Poultry	Meat - Sheep	Meat - Wildfowl	Milk	Mushrooms	Occupancy IN water	Occupancy ON water	Plume (OUT; 0.5-1km)	Vegetables - Green	Vegetables - Other Domestic	Vegetables - Potatoes	Vegetables - Root
Notes:			1					2	3	4		5			6						7				
Units:		kg	-	kg	kg	kg	kg	h	h	kg	kg	kg	kg	kg	kg	kg	l	kg	h	h	h	kg	kg	kg	kg
Crustacean Consumers	1	0.66	-	-	13.7	-	0.68	-	-	0.25	-	-	-	-	-	4.8	-	-	-	-	-	-	-	-	-
Occupants for Direct Radiation	2	-	1	24.3	-	-	-	-	36	-	-	-	-	-	-	-	-	-	-	-	6260	-	-	-	0
Egg Consumers	5	-	0.20	26.0	-	3.8	0.09	-	26	0.09	-	0.18	-	-	3.3	0.54	-	-	4	-	1500	7.0	5.2	-	8.4
Sea Fish Consumers	2	-	-	-	51.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic Fruit Consumers	3	-	-	7.8	-	10.5	-	-	19	-	31.5	-	-	-	-	-	103.7	-	7	-	-	12.9	8.0	5.1	15.8
Wild Fruit and Nut Consumers	2	0.33	-	3.8	6.9	-	1.3	-	-	0.13	-	0.56	-	-	-	2.4	182.5	1.2	-	-	-	-	-	-	-
Houseboat Occupants	1	-	-	-	-	-	-	2880	-	-	-	-	-	-	-	-	-	-	-	5760	-	-	-	-	-
Occupants over Sediment	1	-	-	-	-	-	-	-	2450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Consumers of Marine Plants and Algae	2	-	-	11.4	-	-	0.23	-	-	0.73	-	0.45	-	-	-	1.3	-	-	-	-	-	5.7	7.3	-	2.7
Cattle Meat Consumers	1	-	-	-	-	6.4	-	-	-	-	94.6	-	-	-	-	-	311.0	-	-	-	-	-	-	-	-
Game Meat Consumers	2	-	-	15.2	-	-	1.2	-	-	0.23	-	1.0	-	-	-	1.3	182.5	1.2	-	-	-	5.7	7.3	-	2.7
Pig Meat Consumers	3	-	-	0.74	-	-	0.21	-	-	-	19.9	-	10.7	0.45	-	-	8.3	0.19	-	-	-	-	-	52.6	-
Poultry Meat Consumers	1	-	-	2.2	-	-	0.21	-	-	-	19.9	-	10.7	1.3	-	-	8.3	0.19	-	-	-	-	-	52.6	-
Sheep Meat Consumers	1	-	-	17.8	-	-	-	-	-	-	-	-	-	-	16.4	-	-	-	-	-	-	-	-	-	-
Wildfowl Consumers	2	0.33	-	11.4	6.9	-	0.57	-	-	0.35	-	0.45	-	-	-	3.8	-	-	-	-	-	5.7	7.3	-	2.7
Milk Consumers	2	-	-	3.8	-	3.2	1.0	-	-	-	47.3	0.56	-	-	-	-	338.0	1.2	-	-	-	-	-	-	-
Mushroom Consumers	1	-	-	7.6	-	-	2.0	-	-	-	-	1.1	-	-	-	-	365.0	2.4	-	-	-	-	-	-	-
Occupants In Water	1	-	-	23.3	-	18.8	-	-	58	-	-	-	-	-	-	-	-	-	20	-	-	23.7	11.2	-	36.6
Occupants On Water	1	-	-	-	-	-	-	2880	-	-	-	-	-	-	-	-	-	-	-	5760	-	-	-	-	-	-
Local Inhabitants (0.5 - 1km)	2	-	1	24.3	-	-	-	-	36	-	-	-	-	-	-	-	-	-	-	-	6260	-	-	-	0
Green Vegetable Consumers	4	-	-	11.5	-	6.3	0.11	-	15	0.11	-	0.22	-	-	-	0.67	-	-	5	-	-	20.2	13.4	4.7	14.4
Other Domestic Vegetable Consumers	4	-	-	11.5	-	6.3	0.11	-	15	0.11	-	0.22	-	-	-	0.67	-	-	5	-	-	20.2	13.4	4.7	14.4
Potato Consumers	3	-	-	0.74	-	-	0.21	-	-	-	19.9	-	10.7	0.45	-	-	8.3	0.19	-	-	-	-	-	52.6	-
Root Vegetable Consumers	1	-	-	23.3	-	18.8	-	-	58	-	-	-	-	-	-	-	-	-	20	-	-	23.7	11.2	-	36.6

Notes

1. Expressed as the proportion of the profile members who are exposed to direct radiation.
2. 'Gamma external - Houseboat' includes occupancy over boat on mud.
3. 'Gamma external - Sediments' includes occupancy over mud and sand; mud, sand and stones; sand and stones; stones.
4. Marine plants and algae includes consumption of samphire.
5. 'Meat - Game' includes consumption of rabbits/hares.
6. 'Meat - Sheep' includes consumption of goat meat.
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.

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