Chichester District Council Contaminated Land Strategy 2021 - 2026

February 2021

Consultation

This document is the revised Chichester District Council Contaminated Land Strategy[1] which reflects comments received during a public consultation[2] exercise (approved by CDC Cabinet 8th December 2020) carried out between 1st January 2021 to 29th January 2021. The amendments made following the consultation were considered 'minor' and so in consultation with Penny Plant, Cabinet Member for Environment and Contract Services, the Strategy was approved for adoption by Andrew Frost, Director of Planning and Environment, February 2021.

[1] Previous to the 2015 Strategy the document was titled the 'Inspection strategy for contaminated land'.
[2] A full list of consultees is at page 22 of this document.

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Councillor foreword

Whilst as a policy area ‘contaminated land’ may be somewhat unseen it is nonetheless an important public health issue which warrants serious attention. The approach to tackling it is risk based using sound science for the protection of public health, seeking not to cause disproportionate call on either the public purse or third parties, such as developers and land owners.

The work Chichester District Council (CDC) has carried out under previous strategies stands it in excellent stead to continue to effectively deliver this policy area and related service. We have an extensive database of land that has had a previous use that may have left a legacy of contamination which informs our management of the issue through the Development Management system and informs our response to requests for information from the public. That said our starting point is to consider that land is not contaminated land unless we have substantive evidence to the contrary.

This strategy update is a light refresh as there have been no significant changes to the regime since our 2015 document was written.

Penny Plant
CDC Cabinet Member for Environment and Contract Services

1. CDC's Objectives for dealing with land contamination:

CDC seeks to implement the Part 2A regime and make judgements pursuant of its duties therein within the context and framework of the statutory guidance (DEFRA Contaminated Land Statutory Guidance (April 2012)). Furthermore in dealing with land contamination CDC's aims are:

- to identify and remove unacceptable risks to human health and the environment,
- to seek land remediation through the development management system,
- not to carry out the detailed inspection of sites unless there is significant possibility of significant harm occurring or the likelihood thereof,
- seek to ensure that contaminated land is made suitable for its current use and
- to ensure that the burdens faced by individuals, companies and the community as a whole are proportionate, manageable and compatible with the principles of sustainable development.

The following objectives are pursuant of the aims above. CDC;

- considers that land is not contaminated land unless there is reason to consider otherwise,
- considers the Development Management system as the predominant way in which land affected by contamination will be remediated,
- will encourage voluntary remediation of sites where appropriate,
- will only use Part 2A where no appropriate alternative solution exists,
- will not undertake a strategic or detailed inspection of any site where a planning permission exists or is understood to be imminent unless there is significant evidence that the land is contaminated land,
- will continue the process of strategic inspection across Chichester District,
- will continue to risk prioritise sites for detailed inspection[3],
- will consult landowners before carrying out detailed inspection of their land,
- will refer any issues or allegations relating to radioactivity on land to DECC,
- will only use its powers of entry under Section 108 when it is satisfied that there is a reasonable possibility that a significant pollutant linkage exists,
- where remediation is carried out by CDC then, where liable parties are identified, CDC will pursue the appropriate persons for the apportioned share[4] of the liability,
- will seek to communicate in language that is appropriate for the persons with whom we are communicating and where appropriate in non-technical language,
- seeks to communicate in language sensitive to the fact that land contamination issues have potential to cause property blight and psychological stress,
- will make available its contaminated land Public Register on its webpage,
- will, where relevant, consult other statutory and non-statutory bodies so as to seek advice and share knowledge,

[3] CDC has risk assessed its database of legacy sites and as such the process of prioritisation will mainly be about refinement of priorities arising from new knowledge for sites already on the database or prioritising a new site of which we were previously unaware.
[4] Which could be 100% of the cost.

- will request in writing that, on behalf of CDC, the EA carries out the detailed inspection of any Special Site of which CDC becomes aware,
- will, where necessary, authorise an officer of the EA to exercise the powers of entry conferred on it by section 108 (Environment Act 1995),
- will continue to train the Contaminated Land Team (CLT) so as to ensure an effective service with regard to its duties under the regime and
- has a policy of openness with regard to disclosing information held about land contamination issues.

Our objectives under this Strategy are congruent with CDC's Corporate Plan 2018 – 2021 and its priority to 'manage our built and natural environments, to promote and maintain a positive sense of place' and the objective to;maintain clean, pleasant and safe public places. Likewise our objectives are congruent with the policies expressed in the National Planning Policy Framework.

2. Introduction

CDC adopted its first Contaminated Land Strategy[5] in 2001[6] and amended it to reflect changes to the regime in 2010 and 2015. Since 2015 the regime has undergone no significant changes and this document refreshes the Strategy to bring it in line with consultation comments and minor non-legislative changes only.

Development on brownfield land means that many development sites may have a legacy of pollution from a previous use. Ensuring that land is made suitable for use through the Development Management system is vital to protecting public health, water resources and value of property. This involves a process of informing the Development Management process and subsequently agreeing the developer's work to ensure that sites are made suitable for their proposed use for their design life.

Despite the government removing the grant which facilitated detailed inspection of sites, the duty on councils to inspect their districts remains. For CDC, beyond dealing with sites through the Development Management process and continuing to develop the strategic inspection database of sites, the legislation is a 'safety net' enabling effective intervention should any sites require urgent detailed inspection.

Much has been achieved since we adopted our first strategy all of which places CDC in a strong position to continue to ensure a robust approach to this important public health issue.

We have endeavoured to make this document as strategic as possible, to provide context for our work and to provide clarity where the Statutory Guidance allows for some local discretion. As such it must be read in conjunction with the Statutory Guidance[7] and, where relevant, other pieces of legislation and guidance.

We have endeavoured to make the terminology used in this strategy consistent with the statutory guidance and the glossary of terms will provide readers with greater understanding in that regard. In any case for the avoidance of doubt about definitions

[5] Known then as the 'inspection strategy for contaminated land'.
[6] 4th December 2001.
[7] Environmental Protection Act 1990 Part 2A, Contaminated Land Statutory Guidance, DEFRA, April 2012.

or meanings then the statutory guidance[8] must be considered to over-ride the content of this strategy.

3. The contaminated land regime

3.1. Legislative context

The Environmental Protection Act 1990 Part 2A introduced new duties to Local Authorities. It required that they publish an inspection strategy for their District (this document), keep a register of 'Contaminated Land' and inspect their area in a rational and ordered fashion for the purpose of identifying 'Contaminated Land'. The term 'Contaminated Land' is defined in statute as is the process for formally determining land as Contaminated Land.

Contaminated Land definition: Is any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in on or under the land that (a) significant harm is being caused or there is significant possibility of such harm being caused; or (b) significant pollution of controlled waters is being caused, or there is significant possibility of such pollution being caused.

The supporting guidance[9], for Part 2A details the inspection process including determining liability amongst specific groups or 'appropriate persons' previously associated with the land. Appropriate persons include previous land owners or occupiers and any person carrying out activities on the land, including current occupiers.

In reality the production of a contaminated land strategy has meant that authorities collated data on previous land-uses that may have given rise to contamination in, on or under the land. These are stored as a digital map based database and have all been risk prioritised.

The statutory guidance was updated in April 2012 and suggests that local authority strategies should be updated to reflect the changes to the guidance. There have been no significant updates to the guidance since that date.

3.2. Significant pollutant linkage

For land to be determined as contaminated land there must be a significant 'pollutant linkage' present. A pollutant linkage is where a source of pollution is connected to a receptor by a pathway so as to give rise to harm. There may be multiple pollutant linkages on a site[10].

3.3. Liability

Part 2A identifies two types of 'appropriate persons' in relation to liability for remediation of the land (that the enforcing authority needs to consider). These are

[8] Which is legally binding on authorities.
[9] Environmental Protection Act 1990: Part 2A, Contaminated Land Statutory Guidance, April 2012.
[10] These might be at different parts of the site, be by separate pathways (potentially by air, land and/or water) and affecting different receptors.

only relevant once one or more significant pollutant linkages have been confirmed and are:

- Class A liability group[11]: that is persons who knowingly permitted a significant pollutant linkage to be in, on or under the land.
- Class B liability group[12]: owners or occupiers of the land.

Only where no Class A persons can be found will any Class B appropriate persons bear any liability for contamination. Once Class A appropriate persons are identified then liability for each significant pollutant linkage is identified. If the Class A person no longer exists in relation to a significant pollutant linkage then the liability will fall to Class B person (current owner or occupier).

There are six sequential tests to apply to each member of the Class A liability group:

Test 1 Excluded activities.
Test 2 Payments made for remediation.
Test 3 Sold with information.
Test 4 Changes to substances.
Test 5 Escaped substances.
Test 6 Introduction of pathways or receptors.

Once exclusions have been made, CDC will 'follow the general principal that liability should be apportioned to reflect the relative responsibility of each of those members for creating or continuing the risk now being caused by the significant linkage in question.' 'If appropriate information is not available to enable the enforcing authority to make such an assessment of relative responsibility then liability is apportioned equally amongst the liability group.'

Where no appropriate persons can be found, or after the six sequential tests there are no remaining liable persons, then the linkage is known as an 'orphan linkage' and the local authority should bear the cost of any remediation that is carried out.

Where CDC carries out remediation and an appropriate person can be found then, within the guidance offered at Section 8 of the Statutory Guidance, CDC will seek to recover the costs of the remediation from the appropriate person.

3.4. DEFRA Grant

Until 2012 Central Government offered financial support to local authorities in regard of their duties under Part 2A. However the grant was effectively stopped other than for 'absolute emergency cases' by Lord De Mauley's letter (DEFRA December 2013) and ceased to exist in any form after 2017. Local authorities' statutory duties remain but central government financial support has been removed. CDC has registered this as an operational risk and has made some provision to meet that risk should it arise.

3.5. Strategic inspection and detailed inspection

[11] Or person.

Part 2A requires that local authorities cause their areas to be inspected with a view to identifying contaminated land and to do this in accordance with the statutory guidance. Two types of inspection are intended, they are:

- Strategic inspection; collecting information about previous land-uses and prioritising them for further detailed inspection and
- Detailed inspection; taking soil samples and carrying out risk assessments in order to make determinations about the site[12] in relation to contaminated land.

As an in-house task the detailed inspection of sites through intrusive investigation, analysis of samples (soil, water and gas), risk assessment and remediation is beyond the technical capability of Chichester District Council[13]. Such work has previously been contracted out to consultants, is expensive and might commonly cost multiples of £10K with upper bound cost estimates for site remediation of several £100K not being uncommon.

Although DEFRA removed the supporting grant for new cases the statutory duty for local authorities to inspect land for land contamination remains. Furthermore DEFRA suggests that the authority seeks to minimise unnecessary burdens on the taxpayer.

Given the above situation CDC is not currently pursuing strategic site inspections beyond the desk top (Phase 1A Stage[14]). That is to say that CDC will not undertake intrusive sampling (soil, water or gas), risk assessments or remediation exercises unless they are funded by a third party or until such time as CDC has allocated the appropriate funds to allow the Council to proceed. CDC is also not publishing any timescales for detailed site inspection at this time. The exception to this is if an urgent site inspection was to arise which follows as below.

3.6. Urgent site inspection

The need for urgent detailed inspection might arise in a situation where CDC becomes aware that a previously developed site is likely to be causing significant harm. Such circumstances are extremely rare, nevertheless CDC has a duty under the legislation to inspect any such site. This duty needs to be balanced against other calls on CDC's resources. As such under those circumstances CDC would:

- seek to establish who the liable persons for the site are and whether they still exist,
- apply the six sequential tests from the guidance to establish which liable parties might drop-out of the liability group,
- apportion the liability between the remaining liability groups,
- establish whether any linkage is an orphan linkage,
- seek voluntary inspection by the site owner and/or occupier,
- enter into discussions with DEFRA about the availability of any available grants or funds,
- seek to finance any essential related work through monies held in reserves expressly for this purpose or, where these monies are insufficient, from reserves mandated by Cabinet and

[12] or any part of a site.
[13] Or any council of which we are aware.
[14] Comprising a desk study, site walkover, conceptual model and initial risk assessment.

- seek to recover any costs from liable persons.

4. The Water resources Act 1991

Section 161-161D of the Water Resources Act 1991 and the Anti-Pollution Works Regulations 1999 as amended 2009 empower the Environment Agency (EA) to serve a “works notice” on any responsible person who has “caused or knowingly permitted “a pollutant to enter controlled waters, including from contaminated land, requiring them to take action to prevent pollution or hydromorphological harm in controlled waters or to clean up/restore the effects of a pollution incident or hydromorphological harm.

The Environment Agency can take action themselves under section 161 and 161ZA of the Water Resources Act 1991 to prevent pollution or hydromorphological harm and to clean up or rectify an incident where it is an emergency situation or the likely or responsible person cannot be identified.

Guidance from the EA (Policy and Guidance on the use of Anti-Pollution Works Notices) suggests that in most cases of actual or potential pollution of controlled waters as a result of contamination, the problem will usually be dealt with under the contaminated land Part 2A provisions of the EPA 1990.

5. Radioactive contamination of land

The revised Statutory Guidance does not apply to radioactive contamination of land. The responsibility lies with the Department of Energy and Climate Change. CDC will refer any such issues to DECC.

6. Progress to date

CDC’s work under the previous strategy positions the council very favourably in order that it can continue to administer land contamination issues effectively for the foreseeable future. A significant spatial dataset was captured by officers and is held in a digital mapping database (ArcGIS[15]) and on CDC’s database platform ‘Uniform’. The sites captured were identified from a variety of sources including; historic maps, officer knowledge, EA ‘national historic landfill dataset’, petroleum licensing records, pollution incident reports and other verified anecdotal information.

A good proportion of the legacy sites’ datasets have been added to by virtue of site walkovers, consultant’s reports and other local knowledge (strategic inspection). This process of refining our knowledge[16] about individual sites continues but at a much slower rate than when the database was first being collated.

The dataset described above forms the basis of a planning constraint layer. This is used to trigger a planning consultation request for environmental health and the Environment Agency to comment on planning applications which overlay or abut potentially contaminated sites. For some sites, such as petrol stations and landfill

[15] Proprietary digital mapping software produced by ESRI.
[16] And adding them to the database and planning constraint layers.

sites, we have added 'buffers[17]' as the impact of any pollution might extend beyond the site boundary. Over the 2016 – 2019 period of the previous 2015-2020 strategy an average 233 planning applications have been considered by the CLT per year. Where planning conditions relating to contaminated land are appended to planning permissions then environmental health audit the work that is undertaken by consultants to make the site suitable for its proposed use and finally agree the sign-off of the related planning condition. This process involves agreeing the site investigation strategy, reviewing the reports and risk assessment and remediation strategy. It might also involve a site visit and/or meeting with the developer and their consultant.

The legislation also intends that authorities inspect previously developed land where the development was on land with a previously potentially contaminative use. This approach was facilitated by authorities ranking their database sites for inspection such that the perceived highest risk sites would be inspected first and such that some sites may never come forward for pro-active inspection under the regime. CDC completed this work using proprietary software and all sites are risk ranked from 'A' (high risk) to 'E' (low risk).

A number of screened high risk sites have been visited to carry out a preliminary site walkover inspection and more proactive inspection has subsequently been carried out for three sites for which CDC considered there was potential for high risk (see Appendix 2 for details of these detailed inspections).

The database is also a vital resource for answering requests for information made under the Environmental Information Regulation 2004. Such requests are commonly made by persons and businesses either transacting a property or making property portfolio valuations. The database enables CDC to answer these questions so as to help avail persons of useful data with which to make evaluations of risk. Since 2001 CDC has answered 750 of these requests for information.

7. Development Management

Most land affected by contamination is dealt with through the Development Management system.

Contamination in, on or under land can present risks to human health and the wider environment. This can adversely affect or restrict the beneficial use of land and often development presents the best opportunity to successfully deal with these risks. The planning system therefore has a key role to play in facilitating the development of land affected by contamination.

The broad approach, concepts and principles behind land contamination management adopted by the Part 2A regime should be applied to the determination of planning applications. Planners, developers, statutory bodies and the CLT should work together at every stage in the Development Management process to ensure that land contamination issues are properly addressed.

[17] Buffers are effectively indicative zones around the site boundary indicating where the influence of pollution might extend to.

After remediating through the Development Management process, as a minimum standard, land should not be capable of being determined as contaminated land under Part 2A of the EPA 90[18].

In dealing with land contamination via the Development Management system CDC will:

- Use the ArcGIS based planning constraint layers to trigger a consultation request to the Contaminated Land Team (CLT) from the Planning Officer,
- review and update the ArcGIS planning constraint layers as necessary and, as a minimum, annually,
- expect developers and their agents to voluntarily deal with land contamination issues in pre-planning application discussions and before determination of any relevant planning application,
- respond to planning consultations within CDC's internal agreed response times,
- where land contamination issues might prejudice the economic viability of any given permission reserve the right to object to a planning application,
- object to a planning application where it is likely that the implementation of any given permission would be technically unfeasible,
- reserve the right to object to a planning application where insufficient evidence is submitted with the application to determine whether the site can be remediated as a result of the permission,
- recommend, where the CLT considers appropriate, that any consent be conditional of relevant standard planning conditions,
- make a record of planning comments in Uniform,
- where appropriate, the CLT will liaise with the Development Management officer at the EA,
- audit all reports relating to land contamination and provide written commentary to the relevant parties including; the developer, the contaminated land consultant and the Development Management case officer,
- require ongoing reports beyond the time of the delivery of the site where monitoring and/or remediation is ongoing,
- require that reports submitted for consideration by the CLT will be prepared by competent persons[19],
- agree the sign-off/discharge of relevant planning conditions when the work is completed and documented to a satisfactory standard,
- work within the CL Statutory Guidance, related documents and the NPPF,
- seek to achieve the highest standard for the protection of public health whilst not incurring excessive cost for the developer or public funds and
- keep the planning related contaminated land CDC web-pages up to date.

In considering risks from land contamination in relation to any future use or development, CDC assumes that the development will be carried out in accordance with any existing planning permissions. In particular CDC assumes that:

[18] NPPF, paragraph 178, b).
[19] NPPF para 178, c).

a) That any remediation which is the subject of a condition attached to that planning permission, or is the subject of any planning obligation, will be carried out in accordance with that permission or obligation.

7.1. The Developer's Role

Where a development site is affected by contamination responsibility for securing a safe development rests with the developer and/or landowner[20].

The right information is crucial to good decision making and CDC recommends that developers discuss what is required with CDC planners, the CLT and statutory consultees at the pre-planning application stage[21, 22]. Failure to provide the right information can lead to delays and/or refusal of planning permission.

In order to satisfy the planning authority that risks from contamination will be appropriately addressed through remediation; developers should ensure that they carry out adequate site investigations and risk assessments to inform their remediation strategies. These should all be prepared by competent persons[23]. Further guidance on good practice in the management of land contamination can be found in the related documents. After remediation has been carried out, developers are responsible for showing the LPA that they have been successful. This could involve ongoing monitoring and the submission of verification reports.

8. The Environment Agency's Role

The Environment Agency (EA) is a statutory consultee for local plans, certain types of planning applications, and developments requiring an Environmental Impact Assessment (EIA). The Town and Country Planning (Development Management Procedure) (England) Order 2015 (DMPO) sets out the developments for which the Environment Agency is a statutory consultee. The EA is also a statutory consultee for Nationally Significant Infrastructure Projects (applications determined by the Secretary of State rather than LPAs).

The EA has developed guidance for local planning authorities that sets out the types of planning consultations it should be consulted on.

As a statutory consultee the Environment Agency is expected to take a proactive approach, providing advice in a timely manner at all stages in the development process (see NPPF (2019) paragraphs 16 and 40, and the Planning Practice Guidance 'Consultation and pre-decision matters'). The EA has developed guidance for local planning authorities that sets out the types of planning consultations it should be consulted on. These include situations where land contamination may pose a significant risk to the environment.

The EA's stated main concern when land contamination is being managed under

[20] NPPF para 179.
[21] NPPF para 39, 41 & 43.
[22] Often referred to as the 'pre-app stage'.
[23] NPPF Annex 2 defines 'competent persons'.

Planning, is to protect the water environment – local authorities deal with human health issues. By ensuring that developers reduce or remove the risk or consequences of pollution of surface and groundwaters, the planning regime helps achievement of Water Framework Directive objectives.

CL:AIRE has issued guidance to help developers and land owners understand the concerns and requirements of the EA and other authorities. These 'Guiding Principles for Land Contamination' (GPLC[24]) describe the approaches that developers and land owners are expected to take, what needs to be included in reports for review and the key guidance that can be referred to.

In responding to consultations from LPAs the EA provides recommendations and technical advice on:

- the likely impacts that development on land affected by contamination will have on the immediate and wider water environment;
- the impacts that contaminated water may have on the development;
- proposals for, and the outcome of, investigations and remediation;
- implications of the development for Part 2A contaminated land for which cases where the EA is the enforcing authority (special sites).

The EA will make assessments of the appropriateness and effectiveness of any measures put forward by developers to remediate contamination or any pollution caused from the perspective of protecting the water environment. Where there are technical solutions to resolve issues that would otherwise prevent a grant of planning permission the EA should, where possible, take a 'yes if' approach and explain the steps required to overcome the problems. Developers/land owners are able to obtain pre-application advice (for a charge) under the EA's cost recovery service. Developers/land owners should be directed to contact the EA should they wish to utilise this service.

An Environmental Permit may be needed to undertake certain required remediation activities. Where this occurs the EA should clearly explain to LPAs the issues that, as the regulator, they can control and not duplicate these in the details or conditions in a planning permission unless it is appropriate to do so.

9. Council owned property portfolio

CDC is a property owner of occupied, leased and open-access land, some of which has been subjected to potentially contaminative former uses. CDC has undertaken a review of its former and current land holdings and considers that no detailed inspection of any site is required at the current time.

In 2001 CDC transferred its housing stock to a housing association by a process known as Large Scale Voluntary Transfer (LSVT). Despite transferring the stock any liability arising from land contamination issues remained with CDC in perpetuity (though for clarity CDC does not have liability for contamination introduced after the date of transfer).

[24] The guidance can be found here - https://www.claire.co.uk/home/news/index.php?option=com_content&view=article&id=192&catid=41&Itemid=256

Given CDC's interest in property as described in the above two paragraphs then CDC has a theoretical liability in relation to any claims arising from current occupiers or owners with respect to land both currently or previously owned by CDC or transferred via LSVT. As such CDC has monies in its reserves ring-fenced explicitly to make provision for any such claim or necessary detailed inspection, risk assessment and remediation. In the event that the provision is insufficient then CDC will seek monies from central government and then from submission of a report to the CDC Cabinet. It should be emphasised that the likelihood of such circumstances arising is considered to be small.

10. The Environmental Information Regulations 2004

The Environmental Information Regulations facilitate the publics' access to environmental information held by CDC. Under the regulations there is a presumption in favour of disclosure subject to the regulations defined reasons for refusing a request for information.

Requests for environmental information are commonly made by persons transacting properties and by persons evaluating property portfolios.

CDC has a policy of transparency and openness with regards to information that it holds in regard to land contamination. Likewise it seeks to be helpful with regards to assisting persons in gathering and understanding the information and data and associated risk. This is particularly so where persons requesting the information may be very unfamiliar with land contamination as a subject. Nevertheless CDC will only help to provide the context for understanding risk, ultimately it is for the individual to make their own decisions in relation to risk as they perceive it.

CDC charges a fee for the provision of information under the regulations. The price is updated annually and published on CDC's website and fees and charges register.

11. Chichester District

11.1. Geographical setting

Chichester District covers an area of 786 square kilometres and is one of seven district and borough councils within the county of West Sussex on the south coast of England. It is bounded by Hampshire to the west, Surrey to the north, by the districts of Horsham and Arun to the east and by the English Channel to the south. Although there is urban development in the southern part of the district, the northern half is principally rural with a significant area being part of the South Downs National Park.

According to the Census 2011, the total population for the district is around 113,794 and there are an estimated 55,353 households. Approximately half of the population is located towards the south of the district in the city of Chichester or coastal towns of Selsey, Bracklesham Bay and the Witterings or along A27/A259 corridor.

The district is split into different types of landscape by the South Downs which form a ridge running roughly east – west across the middle of the district area. To the south of the Downs lies the Sussex coastal plain which is largely flat and bounded by two natural harbours, Chichester Harbour and Pagham Harbour. To the north of the Downs the land is more hilly and wooded and is crossed by the River Rother which

runs from west to east to join the River Arun which lies on the district's eastern boundary.

11.1.1. Geological and hydrogeological features

The formation of the South Downs dates from around 100 million years ago (the Cretaceous Period) with the formation of the Chalk. More recent deposits were then formed above the Chalk comprising horizontal layers such as the Reading Beds, the London Clay and the Bracklesham Beds. Around 15 million years ago these rocks were lifted into a huge dome known as the Wealden Anticline and due to erosion of the younger rocks, the Chalk became exposed along the ridge of the South Downs with younger rocks and drift deposits present to the north and south.

The Chalk acts as a natural reservoir (an aquifer) and plays an important role in supplying water to the area. Over 80% of public water supplies in the district are supplied by this groundwater reserve. To the north of the South Downs lies the Wealden Greensand Natural Area which is also underlain by an important aquifer, the Lower Greensand.

The Environment Agency Groundwater Protection Policy uses aquifer designations that are consistent with the Water Framework Directive. These designations reflect the importance of aquifers in terms of groundwater as a resource (drinking water supply) but also their role in supporting surface water flows and wetland ecosystems.

Over 50% of the district is underlain by principal aquifers which are abstracted for drinking water and other purposes. There are two main water companies responsible, Portsmouth Water and Southern Water (and a small part of the district is covered by South East Water). There are 20 public water supply abstraction points in the District and the EA has defined Source Protection Zones (SPZ) around these points to give protection to the aquifers.

In addition, secondary aquifers underlie parts of the district. These are permeable layers, capable of supporting water supplies at a local rather than strategic scale and in some cases forming an important source of base flow to rivers.

Groundwater is an extremely important water resource within the district and therefore requires appropriate protection from pollution incidents.

11.2. Hydrology & Water Resources

There are three principal rivers in the District: the Rother, the Ems and the Lavant and many smaller rifes and streams. Water quality is generally of moderate or poor ecological quality with a few stretches of good ecological quality. The chemical status of the sampled rivers within the district is good. Many of the rivers are known as ephemeral ie they flow only for a short time when groundwater levels are high. The main use of the rivers is for angling and both salmonid and cyprinid fish are found on certain stretches of water. In addition there are many natural and man-made ponds and lakes which are widely used for fishing and other forms of recreation/water sports.

Only around a third of the water abstraction points within the district are from surface waters and they are generally used for the following purposes: spray irrigation, process washing and other industrial uses, fish farming and other

agricultural/horticultural purposes. A small minority of the abstractions are used for household purposes which may include drinking.

There are 75 Private Water Supplies that serve a permanent resident population of around 2164 but when temporary events are held (such as the Festival of Speed), the population served swells to over 50,000. Eight supplies are classified as large/commercial supplies where water is used in a way that may impact on the general public such as for domestic use or food production. The sources of water include springs, boreholes, surface water, boreholes and rainwater harvesting. In addition there is a mineral water company which is supplied by an on-site borehole.

Although surface water resources within the district are not generally used for drinking water directly, given the large number of agricultural abstractions and fisheries and private water supplies, there is potential for pollution entering surface waters to enter the food chain and thus any areas of potentially contaminated land near surface water features will need to be assessed carefully.

The district has approximately 70km of coastline of which 25km front the sea, 40km are within Chichester Harbour and the remainder are within Pagham Harbour. The Bathing Waters Directive provides the primary control for long-term coastal water quality where most people are likely to bathe.

The district's location on the coast, the low-lying flood plain, land drains and culverts all provide an increased risk of flooding. Flooding can cause damage, mobilise pollutants and spread existing contamination more widely affecting people and property. Marine pollution incidents may cause contamination along coastal and estuarine areas. Risks from contamination will be considered if any such incidents occur.

11.3. Areas of Special Interest and Ecology

The district contains an exceptional range of natural habitats and natural areas which includes sites that are of national and international importance for nature conservation. The council has published its Local Biodiversity Action Plan (LBAP) which brings together the Council's planned activities to protect our local biodiversity. The Council's LBAP links to the Sussex Biodiversity Action Plan which in turn delivers the UK Biodiversity Action Plan.

A summary of the number of sites represented in the district is given below, and further information about what constitutes harm to such receptors is provided in Table 1 of the Statutory Guidance:

- Sites of Special Scientific Interest - 40
- National Nature Reserves/Local Reserves – 9 Local and 2 national
- Special Areas of Conservation – 7 sites
- Special Protection Areas - 3
- RAMSAR sites - 2
- National Parks -1

Ecological value will be taken into consideration when sites are investigated, developed and remediated.

11.4. Built environment and protected properties

The South Downs were among the first parts of Britain to be colonised and there are around 200 Scheduled Ancient Monuments, over 3000 Listed Buildings and 85 Conservation Areas within the District. Further information is available by consulting the Historic Environment Record (HER) which is a summary of known historic assets within the district.

Where contamination leads to significant harm to a property, particularly a scheduled Ancient Monument, then an assessment should be carried out to establish if a significant pollutant linkage has resulted (as detailed in Table 2 of the Statutory Guidance).

Where land contamination investigations are to be undertaken at historic sites, including sites that have previously been used for an industrial activity, then the Council will be mindful of the potential archaeological sensitivity, seek appropriate advice and be mindful of the Historic England Guidance; Good Practice Guidance on Land Contamination and Archaeology (2017)[25].

11.5. Historical and industrial development

The historic and current land use patterns that have occurred across the district will have influenced the likelihood and pattern of contamination present.

Industrial activities carried out by early settlers (eg Romans and Saxons) included iron making carried out in the northern (Wealden) area. This industry had a great demand for wood so forestry and coppicing were other key rural industries. Settled areas required construction materials for house building so quarrying for stone, sand, clay and gravel also occurred along with the manufacture of bricks, pottery and tiles. The fertile southern part of the district has been used for farming and in many areas this land use continues. Along the south coast, trades such as ship and boat building, paper making and printing were prevalent. There are a number of former and existing military sites within the district, some of which have since been redeveloped. Since the mid-19th century and the construction of railways, tourism has become a growth industry.

The main current employment sectors in the district are public administration, education and health. “Distribution, hotels and restaurants” and “banking, finance and insurance” are other important employment sectors. The economy is diverse with boat building to the south of the district, Princes packaging plant in the centre of the city, Rolls Royce Headquarters at Goodwood, cement batching plants, brickworks and an inshore oilfield. On the fertile plains to the south of the Downs, arable crop farming and intensive salad/vegetable production employ a high number of workers.

The growth in population, particularly in the last 100 years has meant a large demand for domestic waste disposal sites which in turn have been provided by vacant minerals sites, particularly in the Chichester area. In the rural areas where mains gas is not always readily available, a significant number of people rely on

[25] https://historicengland.org.uk/images-books/publications/land-contamination-andarchaeology/

heating oil which is generally stored in above ground tanks. Spillages and leaks from such systems are known to have caused localised pollution.

Key potential sources of contamination within the district are those associated with former and existing landfill sites. Many landfill sites were operated prior to the Control of Pollution Act 1974 which introduced regulatory controls on such sites.

Sites such as former gas works and other utilities, petrol stations/garages, railways and transport depots, military sites, scrap yards and sewage/waste water treatment works are considered likely to be contaminated and will require site investigation and possibly remediation prior to redevelopment.

12. Responding to requests for information

CDC acts in accordance with the requirements of the following statutes and regulations in making environmental information available to the public:

- Local Government (Access to Information) Act 1985
- Data Protection Act 1998
- Human Rights Act 2000
- Freedom of Information Act 2000
- Environmental Information Regulations 2004
- Openess of Local Government Bodies Regulations 2014

We operate with a presumption in favour of disclosure subject to the relevant tests and exclusions of the above legislation.

CDC holds a public register for land remediated under the Part 2A regime which is available on-line.

We charge for our responses made under the Environmental Information Regulations 2004. Our charges are published on the CDC website and updated annually.

13. Risk Communication

CDC is mindful of the technical nature and legal complexity of the subject of ‘land contamination’. As such the council will seek to communicate in language that reflects the knowledge set of the audience.

Likewise land contamination issues can relate to the potential for serious harm to humans and other receptors. It can also potentially cause blight on property values. As such CDC seeks to be sensitive in its communications using language that, whilst accurately conveying the detail of any relevant situation, will be sensitive to the recipients and does not cause property blight.

14. Strategy Review

Annual progress will be reported through the Covalent reporting software. This Strategy will be reviewed in 2025[26].

[26] Or earlier if circumstances dictate.

Appendix 1

Table 1: Part 2A Inspections[27] carried out by CDC (since 2001.)

Site name	Inspection summary
Thorney Island military base	The site was sprayed[28] with DDT (carried in used engine oil and benzene) from 1934 to the 1970's. This was by way of tackling the mosquito problem which affected the operability of the RAF base there at that time. There was also unlicensed landfilling of waste and land-reclamation behind the sea wall in order that mosquito breeding habitat was removed. The investigation was managed by a partnership between the EA, CDC and the MoD. As DDT[29] had not been assessed in the UK before then the work involved Detailed Quantitative Human Health Risk Assessment (DQRA). The work resulted in some small scale remediation of residential properties and the sailing club and The site was then signed off as fit for use with some minor restrictions in 2008.
Pitsham Wood housing development	This housing development was built on an old landfill in the early 1970's. CDC had received complaints from a resident which suggested the possibility of landfill gas ingress into the properties. CDC accessed DEFRA contaminated land grant monies to commission an investigation of the properties considered likely to be most affected. Residents of the development were engaged and consultants took soil samples and measured gas levels across the site. A DQRA subsequently signed the site off as fit for use (with no remediation).
Florence Road allotments	The allotments were built on an old landfill site. Working in partnership with Chichester City Council a contaminated land investigation was carried out in 2005. A QRA established that some sites were a risk to human health and were decommissioned in perpetuity. A public meeting informed the allotment holders of the findings and actions.
Pebble Beach, Caravan Park	This caravan park is located at the site of the former Selsey Gas Works site. During some minor site works CDC received a query from a caravan/chalet owner about the soil quality. CDC procured a consultant to carry out a land

[27] The DEFRA grant enabling pro-active site inspection ceased in 2017.
[28] DDT was applied to the land by 'aerial dusting' and by hand from back-pumps.
[29] And its breakdown products DDD and DDE.

	quality investigation and risk assessment. Some minor remedial works were recommended and the site discharged as fit for its current use.

Appendix 2:

Consultees:

Key partner organisations:
Chichester Harbour Conservancy
Council for the Protection of Rural England
DEFRA
English Heritage
Natural England
Environment Agency
Food Standards Agency
Health and Safety Executive
Local government:
Arun District Council
East Hampshire District Council
Havant Borough Council
Horsham District Council
Waverley Borough Council
West Sussex County Council
National Park:
Southdowns National Park
Community Groups:
Chambers of Commerce
Transition Chichester
Major landowners:
Goodwood Estates
Crown Estates
Portsmouth Water
Southern Water
Thames Water

Appendix 3: Glossary of terms:

ArcGIS	A proprietary digital mapping software.
CDC	Chichester District Council.
CL	Contaminated Land.
Class A Person	A person who knowingly caused or permitted a pollutant linkage.
Class B Person	The owner or occupier of land on which a pollutant linkage exists.
CLT	Contaminated Land Officer.
DECC	Department of Energy and Climate Change.
DEFRA	Department of Food and Rural Affairs.
DQRA	Detailed Quantified Human Health Risk Assessment.
EA	The Environment Agency.
EPA 90	Environmental Protection Act 1990.
LPA	Local Planning Authority.
NPPF[30]	National Planning Policy Framework.
Orphan Linkage	A linkage where no Class A or Class B person can be found.
QRA	Quantified Human Health Risk Assessment.
SDNP	South Downs National Park.
Special Site	Sites defined in the guidance and legislation where the EA will be the lead agency and enforcing authority.
Statutory Guidance	Environmental Protection Act 1990 Part 2A, Contaminated Land Statutory Guidance, DEFRA, April 2012.
Uniform	CDC's property database.
Strategic inspection	Collecting information to make a broad assessment of land within an authority's area and then identifying priority land for more detailed consideration and/or inspection.
Detailed inspection	Carrying out a detailed inspection of a particular piece of land to obtain information on ground conditions and carrying out the risk assessments which support decisions under the Part2A regime relevant to that land.

[30] All references to the NPPF in this document refer to the NPPF February 2019.