PROJECT REPORT

100 Industrial Places: *Review of the listing of Industrial buildings*

"This is the history of ordinary people that links back through almost every family in Britain, to people who worked in an industry whether they lived in the countryside or live in the town […] These links are direct, and that's why we have to get hold of these things and keep them"

Sir Neil Cossons, 'APPG on Industrial Heritage: Evidence Session 3', The House of Commons (12 October 2017),

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1.0 Introduction

1.1 Barker-Mills Conservation is an independent, expert consultancy advising on the historic environment. Nigel Barker-Mills, the author of this report has over 35 years of experience working with the historic environment. Nigel trained as an architectural historian and has an honours degree and doctorate awarded by the University of Reading. Following appointment as a Fieldworker for the Accelerated Resurvey of the Lists of Buildings of Special Architectural or Historic Interest for the county of Surrey, he was employed by Surrey County Council as a specialist historic environment officer advising on all aspects of the management of historic buildings and areas.

1.2 During his time in Surrey, he obtained a Post Graduate Diploma in Building Conservation from the Architectural Association of London, which included preparing a thesis on the issues around education of construction professionals working on historic buildings. In 2001 Nigel re-joined English Heritage in the South-East Region, before transferring to London in 2009) as Head of Partnerships and subsequently Head of Development Management, with responsibility for strategic relationships with the Greater London Authority and managing the London Historic Environment Record. In 2011-2 he was appointed Planning Director for the London Region, leading a team of 40 specialist Inspectors and advisers, including architects, planners and surveyors providing the statutory advice and grant assistance across the capital. He retired from Historic England in 2016.

1.3 Nigel is a full, founder, member of the Institute of Historic Building Conservation (IHBC) and has served on both the south-east branch, as Chairman and Secretary, and also the national committee. In 2014 he was elected as a Fellow of the Society of Antiquaries of London and in 2017 he was appointed Chair of the Heritage Advisory Group of the Canals and Rivers Trust. Further details of the experience of Barker-Mills Conservation working with both private and public sectors can be found in *Appendix 1* of this report.

1.4 This report is the principal outcome of a project commissioned by Historic England[1] to establish as far as possible the evidence for concerns raised over a considerable time and by various bodies regarding the designation coverage for industrial heritage, in particular the listing of industrial buildings. It attempts to fulfil, in part, an historic suggestion for further designation analysis arising out of the Review of the Quality and Coverage of Lists (Cherry/Chitty 2010)[2]. That report provided high level analysis of the lists but considered that:

[1] Dr Deborah Mays Head of Listing, Historic England

[2] *Statutory Lists: Review of Quality and Coverage:* Martin Cherry/Gill Chitty, Jo Cox and Rachel Edwards, July 2010

"finer-grain analysis would certainly go some way in further identifying specific deficits, which would be especially valuable if done in conjunction with those areas highlighted by respondents"[3].

1.5 The primary purpose of the project is to increase levels of knowledge about a particular type of heritage (Industrial) and the extent of designation of this asset type. The project's key aim is to scope the problem described, determine if it has been ameliorated by National Heritage Protection Plan and reactive work in the last few years in order to assist in identification of where we could usefully prioritise further research and attention.

1.6 This assessment and response to the aim of the project is found in three main sections (3-6). The first section (3) is concerned with scoping the evidence to support the concerns raised regarding designation issues in relation to industrial heritage and in particular with listing. This takes as its starting point the previous detailed work by Martin Cherry and Gill Chitty, commissioned by the then English Heritage in advance of Heritage Protection Reform; along with the equally comprehensive review carried out in 2010 by the same authors and others on the quality and coverage of the statutory lists. This forms the baseline of the detailed evidence as then understood in 2009/10. This evidence has then been supplemented by an analysis of additional sources including *Listing: A View from The Amenity Sector: 2019 by Matthew Saunders OBE (*the Saunders Report) and an examination of subsequent amendments to the National Heritage List for England (NHLE) in the period 2010/1-2020.

1.7 The second stage of the report (4) is validating as far as possible the available evidence regarding existing designation of industrial heritage. This is done by detailed analysis of the NHLE accompanied by the creation of a sample of list profiles selected for geographical spread and in response to previous respondents concerns regarding weaknesses in designation according to building type. The purpose is to confirm as far as possible the existence and potential extent of any under listing of industrial heritage.

1.8 The third section of the report uses the information gathered to provide an initial assessment of potential priorities for consideration, particularly with regard to the list of 100 places included in the Government's Towns Fund.[4] It provides a suggested approach using an indicative framework to assist in the future prioritisation of listing of industrial heritage as well as assisting a wider assessment of the extent of any under-designation of asset types or periods in the future.

[3] Ibid p 101 4.3 Towards Strategic Designation

[4] On 27 July 2019 the Prime Minister announced that the £3.6 billion Towns Fund would support an initial 100 town deals across England. Towns across England will work with the government to develop innovative regeneration plans.

1.9 The scope of the project is confined to England.

2.0 Project Methodology

2.1 The starting point for any approach to achieving the aims and objectives of the project brief has to be an acknowledgement that it is virtually impossible to provide a definitive conclusion on the extent of any designation deficit for industrial heritage in England. Therefore, the purpose of this report is not to provide a list of industrial assets that should be designated. The key factors that prevent such an outcome at present are:

- The impossibility of knowing precisely the existence or survival of industrial heritage across the country; in other words, the extent of the potential resource;
- The impact of different definitions of the term "industrial" upon both the perceived extent of the resource and therefore any subsequent conclusions and judgements; and
- The difficulties of establishing the current extent of designation of industrial heritage.

In other words, no-one knows precisely what has survived and the potential extent of survival depends on what is regarded as an industrial asset; in addition, current designations as recorded in the NHLE have not been consistent in their description of asset type or class which affects an assessment of the potential deficit. However, within these limitations it is still possible to provide some indication of how our industrial legacy has been recognised and to what extent that recognition is reflected in designation. That is the purpose of this report.

2.2 The first stage of this project was to establish a working definition for the term "Industrial Heritage". The English Heritage Monuments Protection Programme (MPP) themes, which are an important part of the current evidence base were not fully aligned with the subsequent adoption by the industrial heritage programme of a definition based on Arthur Raistrick's classification by material and process. This latter classification was a structure for systematic evaluation based on the following types of industry:

- Extractive industries
- Inorganic manufacturing
- Agricultural (organic) processing and manufacture
- Power and Utilities
- Transport and Communications

2.3 The definition used for Industrial Heritage at Risk Project, which had a defined time frame of 1750- 2011 but a primary focus on the period 1750-1914,[5] was slightly different in placing inorganic and organic processing as subsets of processing and manufacture, with a separate subset for warehousing. Both definitions, IHAR and Raistrick made no distinction between urban and rural locations. Therefore, this project had to determine a definition which would then be applied retrospectively as far as possible to the evidence contained in the baseline reports and also be the framework for validation.

Definition for this report

2.4 Industrial type: In order to maintain consistency with the established Raistrick definition for industrial heritage, the starting point in this project follows that framework. Unlike the Industrial Heritage at Risk project the Inorganic and Organic industry types are not grouped together under Processing and Manufacture but kept separate and the warehousing element is associated with its relevant industry type. For example, a canal or railway warehouse is recorded under transport and a textile warehouse under organic processing rather than forming its own sub category. Organic processing as an industry type is based on a direct relationship with the products of agriculture including grains, diary, fishing, and wool, rather than the method of production or processing e.g. in an industrial factory or mill; for this reason textile manufacture is classed as organic in this report. Paper manufacture, although largely based on wood products also included other materials and is classed as Inorganic in this report. The time frame for this report is generally 1750-2000, although many types of assets, for example extractive industries or inorganic metal-based manufacture have origins in earlier periods, for which they may be most significant, but continued in use into later centuries. These types of assets have generally been included in the scoping and validating exercises using professional

[5] Key terms for the Industrial Heritage at risk Project
Extractive Industry
Mining and quarrying – stone, clay, coal, iron and non-ferrous metals
Processing and Manufacture
(i) Inorganic – Metal-based manufacture (ore dressing and preparation, smelting sites, ironworks and engineering [including vehicle manufacture]), brick and tile works, lime and cement works, potteries, glass manufacture and chemical production sites (alum, salt, explosives, etc)
(ii) Organic – Textiles and clothing, food and drink (flour milling, maltings, oasthouses, breweries, food processing and preserving) leather, and wood processing sites including paper mills
(iii) Warehousing
Power and Utilities
Wind, water and steam power, coal gas works, electricity production sites (steam, coal, oil, gas, hydro-electric and nuclear), water and sewage works
Transport and Communications
Roads (including car manufacture) and bridges
Canals, rivers and inland navigations
Rail
Ports, docks and harbours (including naval dockyards)
Civil aviation

judgement. These have to differing degrees been subject to focused research and benefit from more-detailed attention[6],

2.5 Classification of individual industrial asset type: Many asset types combine different industrial functions, obvious examples being limestone quarries which also contain kilns for the production of lime; or lead, tin and copper mines which involve extraction but also include processing of the ore on the same site. These sites therefore span two industrial types and boundaries are porous for many others. In order to avoid double counting and possible over-representation of either the resource or extent of designation, such sites have been allocated to one industrial asset type. In this report the extractive industry type has generally been used to record metal-based manufacture, with the exception of brass. It should be noted that metal processing therefore remains an area where there are possible unidentified deficits. Where a quarrying site also contains reference to kilns, the extractive industry asset type (mining/quarry) has also been preferred. But where no associated record of quarrying activity is recorded, for example the kiln is the only asset referred to, then it is recorded in its own right as a distinct type within the broader asset class. In addition, some assets change their individual "type" over history, an example being mills used for corn which later became important for the manufacture of textiles, thus moving from one type of organic processing and manufacture into another. In most cases it is possible to determine from the designation information which role is regarded as most significant and therefore allocation to relevant type has been made using professional judgement. These indistinct boundaries and judgements mean that the majority of figures relating to individual asset types within this report have to be treated with appropriate caution and should not be regarded as definitive.

2.6 There is also an issue of judgement to be exercised for inorganic processing and manufacturing regarding the boundary to be drawn between the site for process and a dedicated site for retail or administration of the company. This issue generally arises in the later 19th and 20th centuries with, for example, chemical or glass manufacturers where production may be on several sites, but a discrete headquarters building is also provided. Again, using professional judgement, if the link appears direct, an administration or retail building has been included within the relevant industrial asset type alongside the sites of production for the purpose of analysis in this report. This issue is one aspect of the wider debate as to what forms our industrial legacy which is considered in more detail below.

2.7 Focus: The focus of the Raistrick approach is based on material and production process. The benefit of this is that in limiting the focus to process in isolation, it is

[6] See for example, *Strategy on the Historic Industrial Environment Report England's Atomic Age Desk top investigation and assessment, 2006; and High Merit: Existing English Post-War Coal and Oil-fired Power Stations in Context*, 2013 (published online 2016) and *'20th-Century Coal- and Oil-Fired Electric Power Generation* in the Introductions to Heritage Assets series (2015).

potentially easier to identify the extent of the resource and therefore, subject to the constraints identified above (para 2.1), to try and establish the extent of any designation deficit. However, as recognised by the All-Party Parliamentary Group (APPG) Industrial Heritage crosses subject boundaries; it is social, cultural and economic.[7]

2.8 Industrial activities at sites such as Elsecar or mining in Cornwall produced settlements and landscapes whose heritage significance is directly related to the industrial process but extends beyond the actual site of processing itself. The economic benefits of the industry were also manifest in the "polite" architectural legacy of mill owners or manufacturers houses, as well as being related to their philanthropic bequests or paternalistic approaches to providing for the social and spiritual well-being of their employees and associated communities. Industrial activity did not take place in isolation and in recognising the industrial heritage of England these "extra- mural" elements should be considered as being part of our industrial legacy. This has, however, implications for determining the extent of the "designation deficit". However, the focus of this report has been primarily on the identification of sites using the classification by material and process, but in validating the potential extent of under-designation a wider focus was used to identify where possible, associated assets including housing, as well as those provided for the welfare of industrial communities. These latter assets do not, however form a significant part of the analysis.

2.9 *Consultation*: The Cherry/ Chitty Reports involved positive engagement across the wider Heritage Sector as it then was. This has not been possible with this project because of the project timescale and brief. Some consultation at an early stage was undertaken with Historic England staff which provided initial feedback on proposed methodology and issues to be considered.

3.0 Scoping the potential designation deficit

3.1 The Cherry/ Chitty Reports of 2009 and 2010 provide a valuable baseline from which to begin to try and define the perceived extent of the designation deficit for Industrial Heritage. The context of the reports was the reform of heritage protection and the aspiration to create a unified designation regime and national register. This unification would incorporate all existing designations and become the national list where new designations would be added. That latter aim has now been achieved although further integration of designation regimes is still possible. A

[7]APPG Report on the Challenges Facing the Industrial Heritage Sector May 2018 Forward by Nick Thomas-Symonds MP **Member of Parliament for Torfaen, Chair of the All-Party Parliamentary Group on Industrial Heritage**

necessary summary of the findings of each report relevant to this project is provided below.

Heritage Protection Reform Strategic Implementation Report- Martin Cherry/Gill Chitty Revised Version October 2009

3.2 The objectives of this project were to assess the state of understanding for particular asset types within existing thematic projects to determine if their conclusions were still relevant and useful.[8] Recommendations for the management of particular assets would be drawn up and priorities for the future National Strategic Designation Programme would be identified. Among the project tasks were an overview of the quality and utility of each of the thematic projects; determining whether or not the reports made a comprehensive sweep across the whole resource, or were based on the sampling of best examples; and to provide general policy guidance for the then English Heritage on designation priorities derived from the conclusions of this review of inherited programmes.

3.4 54 projects were assessed in the report which included industry specific projects, area-based projects and national designation projects. Several included elements of what can be described as industrial heritage, in addition to the special Monument Protection Programme Project on Industrial Heritage itself.[9] Of particular relevance to this current review is the spreadsheet of options for future designation, which forms the third element of the report, because this indicated both the coverage of individual projects and any perceived designation deficit at that time. This options spreadsheet, used with suitable caution, forms an important part of the baseline for this current report.[10]

3.5 Following the end of the MPP industrial programme in 2004, a successor programme of 'Strategy on the Historic Industrial Environment Report' (SHIER) studies, was started. These projects were national in scope, designed to provide an introduction to historic industries and to assess the current state of the resource. They also aimed to provide sufficient background information on levels of survival, protection, and significance to guide future designation. A number were started including for the brewing, engineering and nuclear power industries. Selection Guides for monument

[8] Thematic projects and reviews were undertaken from the late 1980's by the formerly separate Listing Team, Parks and Gardens Team and Monument Protection Programme until their merger in 2002 to form the Heritage Protection Department. The thematic heritage asset assessment programmes were suspended in 2004

[9] Cherry/Chitty Report 2009: Summary of Assessed Projects Table on pp5-7. An extract of the Summary Assessment of the MPP Industrial Heritage project is provided in Appendix 1 of this report

[10] Ibid p 23 para 4.7.9 The thematic programmes (MPP and TLR) made enormous contributions to knowledge. On the listing side, much of the 'grey literature' was often ephemeral –notes to aid assessment, culled from published sources and limited documentary trawls etc- and once the assessments were made and (ideally) the designations put in place, they lost much of their value. This accounts in part for the difficulties encountered in locating much of the primary material upon which to base this audit. (The other main reason was the dispersal and loss of much material when HPD was dispersed.

classes in the programme were subsequently published in 2007.[11] However, the report recorded that

> *The good was also the enemy of the best in some projects. The best-preserved and most significant 2-3% of assets, where designation was critical for protection, was clearly identified, but sometimes never designated because of the large number of other possible candidates that overwhelmed the implementation process.*[12]

3.6 The Cherry/Chitty 2009 report also considered the Thematic List Review (TLR) and, of particular relevance to this current project, the reasons for its creation. Of interest were the outcomes and quality of the earlier Accelerated Urban Reviews (AUR) and some of the industrial listing reviews emerging as part of the MPP. An assessment of the AUR's carried out in the early1990's found them to be of varying quality because of a number of factors.[13] The assessment also discovered that without a focus on urban heritage under pressure, particularly inner-city industrial quarters ripe for redevelopment, the AUR would not deliver appropriate designation outcomes. The report found that the building types being identified for listing under AUR were actually domestic buildings and small objects or street furniture. Unless these buildings or street furniture related to Raistrick categories for example transport and communication, they have not been included within this report.

3.7 Studies of other generic groups, notably textile mills, were conducted as part of the TLR from the outset. The intention was to cover the country's major textile manufacturing areas on a region-by-region basis working from research into the industries either already undertaken or commissioned. The figures for several areas have now been identified so there is a better understanding of the resource.

3.8 The conclusions of the same authors in their subsequent report on the quality of lists *(see paragraphs 3.11-3.13 below)* in relation to thematic listing in particular were:

> "*Broadly speaking, there were two approaches to thematic listing: one was to attempt as comprehensive a degree of coverage as possible for each building type (such as the project on textile mills, for instance); the other was to evaluate a number of examples of each building type that would then serve as benchmarks for*

[11] Industrial Buildings Selection Guide (extractive and manufacturing industries); Utilities and Communications Buildings (for electric power generation, gas/oil, and water industries); Agricultural Buildings Selection Guide (for dovecotes); Garden and Park Buildings Selection Guide (for icehouses); Transport Buildings Selection Guide (for bridges).

[12] See Appendix 3 of this report for an extract of the Appendix 1 table of the Chitty Report on progress achieved.

[13] The AUR original remit was very limited –each would revisit every listed building and then consider candidates put forward by the local authority. There was never any intention to achieve comprehensive evaluation (and a 'definitive' list). The more energetic conservation officers put forward large numbers of candidates; less committed or poorly resourced authorities did not, thereby perpetuating the imbalance of coverage from area to area.

further listing (as with the post-war listing programme). Both had their strengths and weaknesses. The idea of achieving comprehensive coverage for a given building type was quickly found to be impractical, even if carried out (as was the textile mills survey) on a regional basis. Tight resources and competing priorities meant that progress was impossible to continue as planned".[14]

3.9 Within the 54 projects in the Cherry/Chitty reviews 28 are considered relevant for assisting in establishing the baseline for the designation of industrial heritage *(Appendix 3).* The majority are grouped under extractive industry; manufacturing; power; and individual industries. Organised into the Raistrick categories they are:

Raistrick Category	**MPP and other Project Numbers**
Extractive	*31* Lead; *32* Coal; *33* Alum; *34* Tin copper and non-ferrous; *35* iron mining and iron and steel production; *36* stone quarrying; *38* clay; *39* Underground extraction
Processing and manufacture inorganic	*16* furniture manufacture Shoreditch; *17* Birmingham Jewellery Quarter; *18* Intensive Industrial Area Assessments;*19* Engineering works; *35* Iron mining and iron and steel production; *40* gunpowder; *41* brass; *42* glass; *43* lime and cement; *44* chemicals;
Processing and manufacture organic	*21* Maltings, hop kilns, oasthouses, breweries; *37* salt industry; *15* textiles;
Power and Utilities	*47* electricity industry; *48* water and sewage; *49* gas industry; *50* oil industry
Transport and communications	*1* Railways

Figure 3.1: Reconciliation between MPP and other categories and Raistrick definitions

3.10 The Report provided a retrospective assessment for each project which included an assessment of progress and also its potential future relevance. The assessment of progress for MPP projects is in the form of "Steps" [15]which are set out in the spreadsheets and provide an indication of those projects where policy decisions regarding designation had been taken *(Step 4),* along with an indication of implementation of those decisions. Five of the former programmes had not progressed to a policy decision on designation for various reasons, and a further two had not made much progress at all. One programme, that for Railways was not analysed using the Step process. Intensive Industrial Area Assessments or manufacturing area assessments, for example Shoreditch, Sheffield and Birmingham

[14] Cherry Chitty et al 2010: **1.2.4** page 19

[15] The Steps are: 1- characterisation/history of the industry; 2- Shortlisting of sites for evaluation; 3-detailed site evaluation; 4- Policy decision on designation; 5- implementation

Jewellery quarter were not MPP projects but rather thematic and are therefore also not included in the Step process. This means that we have quantitative information on potential designations for the remaining 11 MPP projects.

Raistrick Category	MPP Project number	Policy Decision	Designations to 2008	Designation deficit
Extractive				
	31 Lead	133 SAM 56 LB	110 SAM 1 LB	23 SAM 55 LB
	32 Coal	70 SAM 41 LB	53 SAM 15LB	17 SAM 26 LB
	33 Alum	12 SAM	9 SAM	3 SAM
	34 Tin & Copper etc	216 SAM 36 LB	37 SAM 2 LB	179 SAM 34 LB
	35 Iron	213 SAM 16 LB	None	213 SAM 16 LB
	36 Stone	132		
	38 Clay	No		
Processing & Manufacture inorganic				
	40 Gunpowder	12 SAM 18 LB	11 SAM 10 LB	1 SAM 8 LB
	41 Brass	8 SAM 11 LB	1 SAM 7 LB	7 SAM 4 LB
	42 Glass	36 SAM 8 LB	11SAM 5 LB	25 SAM 3 LB
	43 Lime & Cement and plaster	110 SAM 7 LB	51 SAM 14 LB	59 SAM
	44 Chemicals	No		
Processing & manufacture organic				
	21 Maltings hop kilns etc			
	37 Salt			
Power and Utilities				
	47 electricity	14 SAM 47 LB	2 SAM 31 LB	12 SAM 16 LB
	48 Water	63 SAM 104 LB	9 SAM 99 LB	54 SAM 5 LB
	49 Gas	No		
	50 Oil	No		
Transport & Communications	1 Railways			
Total				593 SAM 167 LB

Table 3.2: Summary table of designation deficit drawn from Cherry/Chitty 2009

3.11 Appendix 3: Options for Designation of the Cherry/Chitty 2009 report contains a particularly useful assessment of recommendations for future approaches. The textile projects are identified for potential area assessment approach, with less urgency geographically for the West Country (which has been done) but greater priority was suggested for utilities including, electricity generation, gas and oil.

Statutory Lists: Review of Quality and Coverage 2010- Martin Cherry/Gill Chitty, Jo Cox and Rachel Edwards

3.12 An important part of the commendably wide consultation process undertaken for this project were responses concerning the perceived coverage of the lists and in particular, asset types that were felt to be under or "poorly" represented.[16]The summary of the response is worth repeating here:

- *Agricultural buildings were identified as most poorly represented (41%)*
- *Industrial buildings, suburban houses and education buildings were identified by over a third of respondents as poorly represented (38-37%)*
- *Commercial buildings, vernacular houses, and places of worship were identified by over 25% of respondents as under-represented*
- *Other significant groups included commemorative buildings, culture and entertainment, street furniture and transport buildings*
- *All categories of buildings were identified as poorly represented by 5% or more of respondents.*[17]

Industrial heritage as an asset type was the second highest category behind agricultural buildings and there is a probable, although not explicitly made, correlation between this weakness and those identified regarding coverage by period. Both the late Victorian and Inter-War periods were widely felt (c70% of respondents) to be areas of under representation.

3.13 In the summary of qualitative detail underpinning the consultation responses examined as part of the Cherry/Chitty report, industrial buildings were identified as poorly represented in all regions. This identified under representation of industrial buildings was particularly noted in the North West; but also, in the East of England, South West, West Midlands, North East, Yorkshire and The Humber. Other related asset types including 19th and 20th century manufacturing, were also identified by local authority and other respondents, with regional differences for mining and mill industries, as well as a range of regionally distinctive specialisms such as carpet mills

[16] Ibid Section **2.4** pages 35-41
[17] Ibid page 39

(West Midlands); car manufacture (West Midlands, North West); fishing industry (North East); and the lime industry (Yorkshire and The Humber, and South West).

3.14 In attempting to identify regionally distinctive themes with regard to weaknesses in listing, Cherry/Chitty set out the detailed responses which included the observations that:

- *Far more emphasis needs to be given to the industrial and commercial buildings in Leyland, Bamber Bridge and Lostock Hall. We have already lost too many industrial buildings in South Ribble (and across Central Lancashire), which were of architectural merit, that played a fundamental part in the nation's commercial vehicle heritage.* (South Ribble, NW);

- *C19th and early C20th industrial buildings and sites which are now vulnerable to redevelopment or decay. This is the emerging heritage which could be lost without being noticed.* (Tyne and Wear, County Durham, NE)

3.15 The analysis of listing at a national level carried out as part of the Cherry/Chitty report produced an overview based on building type, although it is clear that the definition of "Industrial" as a building type does not correlate with that used by Raistrick. Taking that latter definition as a basis, *Industrial* as a building type would include Transport, communications and maritime as well as water supply and drainage. This would result in approximately 11% of listed buildings, nationally, being classed as industrial. It should be noted that even this figure would not take into account organic processing and manufacture, presumably part of which is within the agriculture and subsistence building type and possibly within the commercial building type. Therefore, establishing a simple baseline for the listing of industrial heritage is difficult without examining every single list entry. However, even that exercise would not provide a definitive answer because of the well-known limitations of list entries and descriptions as described and set out in the Chitty/Cherry 2010 Report and subsequently confirmed by the Saunders Report (see below).

Building type % of Listed buildings, nationally (2008)

Domestic 38%

Agriculture and subsistence 12%

Commercial 8%

Transport, communications, maritime 8%

Religious, ritual and funerary 7%

Gardens, parks and open spaces 6%

Commemorative 4%

Industrial 2%

Recreational 2%

Civil, health and welfare, defence 2%

Education 2%

Water supply and drainage 1%

Other (unassigned) 8%

(Source: English Heritage Heritage Counts 2009

Figure 3.3 Percentage of national list by building type

Listing: A View from The Amenity Sector: Matthew Saunders – Synopsis 1 November 2019

3.16 This report provides another resource for considering evidence for the scope of the potential designation deficit for industrial heritage. In many regards the report identifies the same issues raised by the earlier Cherry/Chitty et al 2010 review, although with the benefit of a further decade of designation. A principal finding of this report is that an appreciable number of buildings that should be listed are currently not and that this deficit will take many years to address without additional resources to increase the rate of additions to the list.

3.17 Among the asset types identified in the report as suffering from this listing deficit are "*Industrial buildings, structures and complexes*" although the definition for these asset types is not clear. The report recommends addressing the deficit urgently as one of its four recommendations (section 7 Recommendation 1 page 13) using a mix of

geographic as well as thematic approaches, but industrial heritage does not feature explicitly in any of the 42 other recommendations.

3.18 The consideration of the extent of potential under listing of industrial sites within the main report states:

> *Some industrial sites: I have surmised this from spot-checks of the existing lists and taken some general advice from AIA. This is an area where further research is definitely necessary but it seems a fair supposition that only some of the deficiencies unearthed by Chitty/Cherry (page 39) have been overcome in the decade since.*
>
> *It is known that bridges and locks were underlisted because of the agreement with the British Waterways Board to list only representative examples, during the accelerated survey – although this has been offset in part by discrete surveys since on the GWR line and the thematic on "Dorset Bridges", 2015-16 (which led to 34 Listings or upgrades). The Heseltine survey was itself a pioneer in the understanding of significant sections of industrial archaeology, such as the tin industry in Cornwall. So were the subsequent thematic surveys of esoteric building types like the laundry, and the more mainstream – the buildings of the Brewing and Malting industries, steel-framed Northern mills, the bottle kilns of Stoke and the crafts of Lace-making and Jewellery. All these pushed the boundaries of scholarship but the pace of understanding at industrial sites is moving so swiftly that only new surveys can capture the architectural manifestation of that fuller understanding.*

Other sources

3.19 There are a considerable number of other online and published sources that can assist with trying to establish the potential extent of the industrial heritage resource. These range from RCHME, English Heritage and Historic England surveys of a geographically defined individual asset type, for example *East Cheshire Textile Mills by A Calladine and J Fricker published 1993*; through to research papers produced by organisations with an interest in industrial archaeology including The Newcomen Society; The Association for Industrial Archaeology and The Ironbridge Institute, as well as articles published and produced by local industrial societies.[18] It has to be noted that the constraints of this current project did not allow for a thorough examination of all of the available sources.

Conclusions on the Scope of the Designation Deficit for Industrial Heritage

3.20 Although undertaken over a decade ago, the analysis and conclusions of the Cherry/ Chitty reports 2009 and 2010 remain the most authoritative baseline for considering the scope of potential designation deficit for Industrial heritage. The more recent

[18] An example would be The Ironbridge Research Institute which has produced papers on various industrial assets types including Research Paper 44 *Identification and Evaluation of Surviving sites associated with the Leather and Allied Trades 1993*; or Nottinghamshire Industrial Archaeology Gazetteer; Graces Guides to British Industrial History

analysis in the 2019 Saunders' report was not primarily focussed on Industrial Heritage and a systematic analysis of the baseline and how that has evolved from the Cherry/Chitty assessment was not undertaken.

3.21 Both the earlier Cherry/Chitty 2010 report and particularly the Saunders' report demonstrate that there is a widespread perception across the sector that listing for the 19th and 20th centuries and Industrial Heritage in particular, has weaker coverage. However, it is not clear whether the sector responses are all using the same, or even similar definitions of Industrial Heritage. This is extremely unlikely and may help to understand why, apart from a general perception, particular industrial asset types are not often highlighted in detail with specific examples. This means that validating the perceived deficit and addressing it is more difficult.

3.22 It is also important to note that the sense of a sector designation deficit as reported in the 2010 Cherry/Chitty et al report, and latterly the Saunders' report, is primarily in the context of listed buildings rather than across the different categories of designation. Whether an understanding of the extent of scheduling of industrial sites and/or inclusion of industrial asset types in the National Record for the Historic Environment (NRHE) would materially change perceptions is not clear. In light of the discretion granted to the Secretary of State with regard to Scheduling and the protection afforded to sites of archaeological potential of national importance, but not formally designated, this could be significant.[19]

3.23 Finally, it is important to note that the scope of any potential deficit may well have reduced since 2010 and a detailed analysis of designation activity between 2010 and 2020 is therefore important in looking at different ways to validate whether there is a deficit in designation of industrial heritage and its extent. This is considered below.

4.0 Validating the Designation Deficit

4.1 Four steps were taken to try and validate the conclusions regarding the extent of a designation deficit for industrial heritage. Although the majority of the work concentrated upon listing, in response to the project brief, other designations were considered in light of the asset types being looked at. The steps taken were

- to analyse designation activity from the time of the 2010 Cherry/Chitty review to 2020 in order to establish the number and type of industrial listings considered;
- to provide an analysis of the date and asset type profile of a sample of existing lists, selected to reflect geographical spread and validate concerns raised by respondents in the earlier consultations by Cherry/Chitty and Saunders;

[19] National Planning Policy Framework (NPPF) "*Non-designated heritage assets of archaeological interest, which are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets*" footnote 63 on page56.

- to select a detailed case study for examination of current designation against a well understood legacy of industrial heritage
- an examination of the NRHE to establish the number of entries with Step 3 citation in the MPP as an indication of the extent of the legacy of earlier work for designation other than listing

4.2 The validation exercise was primarily desk based using the Historic England Website and the advanced search facility for the NHLE as a tool. In addition, Historic England staff[20] provided assistance with searches of the NRHE and NHLE to provide analysis that was not achievable otherwise.

Designation activity from June 2010

4.3 A systematic analysis of significant designations and amendments for the period June 2010 to 31 December 2020 was undertaken. This analysis convers **significant amendments and additions** to the national list annually. Industrial assets already on the list and subject of minor amendments or enhanced listings were not recorded in detail. The new additions to the NHLE were recorded by industrial type according to the Raistrick definition and this information was then assessed to try and answer the following questions:

i) the approximate proportion of new industrial designations each year;

ii) the number and distribution of those designations by industrial asset type;

iii) the relationship between the designated industrial assets alongside other additions and the perceived deficits by date or type;

iv) the annual rate of additions

4.4 Unfortunately one of the more significant pieces of analysis, which would be to cross reference the new designations with the Step 4 policy decision deficits identified in the Cherry/Chitty review of 2009 *(see paragraph 3.9 and figure 3.2 above and Appendix 4)* proved not to be possible for two reasons. The Step 4 reports were found to be located in the National Archive in Swindon although they have not been digitised and so are not available on-line. Due to Covid-19 regulations attempts to visit the Library and Archive have been unsuccessful at time of writing this report. Undertaking this piece of work is important as a final step in the validation of the extent of the perceived designation deficit.

4.5 In the period June 2010 until December 2020 there have been c11,780 assets either added to the NHLE or existing entries significantly amended. Minor amendments are not included in this analysis. The annual rate of addition and amendment is based on using the date of designation function of the Advanced Search Facility from the

[20] Thanks are due to Neil Guiden and Luke Wormald in particular.

NHLE. This rate has varied but it is important to note that it includes a significant distortion in the profile of activity which occurred as a result of the World War 1 Commemoration Programme. The impact of this project on existing designation activity was only partly mitigated by the fact that this was part of a wider, nationally strategic project to which dedicated resources were attached.[21] For example, there is a clear reduction in the number of industrial assets added to the NHLE from 2014 and a similar impact on the number of other designations when the WWI designation programme began in earnest. It should also be noted that unlike the years 2011-2020, assessment of designation activity for 2010 covers only half of the year, June-December. This is because the Cherry/ Chitty 2010 report included designation activity up until May 2010.

4.6 There is a further anomaly in the general profile of activity which is the result of a significant number of additions and significant amendments (2168) to the list, which occur around the 15-16th October 2010. These appear related to a resurvey of Bath and North Somerset which added a significant number of tombs or monuments, alongside walls and railings. If these are taken out of the figures, the remaining total for addition and amendments for June-December 2010 is c548. It is this latter resource that has been analysed in detail and forms the basis of the statistics. Within those additions there are a significant number of K6 telephone boxes and milestones, the latter in Cornwall. An appreciable number of war memorials also start to appear in the list in anticipation of the World War 1 Commemoration Programme. What is of note, however, is the change in profile of both the type of listings and the date profile of listing that emerges in the following two years.

4.7 Detailed assessment of the designation profile for the years, 2011-2020 *(Appendix 5)* demonstrates some distortion in activity as a result of the WW1 commemorative programme with regard to both new additions in general and industrial assets in particular. A marked drop in the number of Industrial assets being added from 2014 is followed by a gradual decline reaching its nadir in 2019. A similar, but less pronounced profile appears for other assets.

[21] The analysis of designations for the World War I Commemoration is focussed on new listings, but it should be noted that there were also a number of memorial landscapes also designated as Parks and Gardens and some Scheduling, particularly wrecks relating to the First world War, that were also added to the NHLE between 2014-2019.

Year	Total Entries	New SAM and RPG	New listings WW1	New listings Other	Industrial Assets	Industrial by % *(excluding WW1)*
2011	912	21	30	578	133	c23%
2012	695	31	46	413	121	c26%
2013	640	56	38	303	119	c33%
2014	690	49	97	245	80	c20%
2015	1043	35	421	332	86	c25%
2016	1432	47	722	345	50	c12%
2017	1177	28	638	277	63	c20%
2018	1173	28	618	282	72	c25%
2019	737	34	368	203	38	c16%
2020	642	54	115	252	59	c20%

Table 4.1: Designation Additions over the last decade 2011-2020[22]

4.8 The results of further detailed assessment of the annual activity on the NHLE is set out below:

2011

Overview: The additions and significant amendments include a considerable number of enhancements to listings for Bromyard; listing enhancement and new listings for the Stroudwater Navigation and Canal; Dean Clough (textile industry) listing enhancements and new listings. Over 30 milestones in the West Country were added and there are also a significant number of listings for Brompton Cemetery and Bunhill Fields burial ground; and a mini defined area survey for Boston Lincs.

Industrial listings: Transport was the asset type with most activity and 50% being milestones. 25 or c40% listings were for railways, of which over 60% (16) were London underground stations; about 10% (7) of the transport assets were canal structures. Inorganic processing comprises c8%, of the total number of industrial assets whilst organic processing, include 5 textile mill listings covering 4 sites in Dean Clough, Calderdale and one in the south-west accounts for 13%.

2012

Overview: The additions and significant amendments include a significant number of military pill boxes, a review of Kensal Green Cemetery; a re-survey of Wrest Park

[22] This total includes street furniture such as milestones and lamp posts

and a significant number of Great Western Railway structures identified as part of the electrification project for the line. Many bridges were added to the list.

Industrial listings: The largest percentage of additions were again transport structures, the highest number in the decade under examination and forming c72% of the total for the year. The industrial listings also included outputs from the study of 20th Century motoring[23] comprising c10% (13) of the total number of industrial assets for the year. These were mainly garage and service stations, but also two sites associated with car manufacturing.

2013

Overview: The outputs of the project on Post-War and modern, architect-designed private housing resulted in a significant number of additions to the list, alongside military structures in Medway, a review of a town gas lighting system in Malvern Wells, the addition of MOD structures at Corsham; and a number of municipal parks in northern cities whose descriptions were enhanced.

Industrial listings: Transport infrastructure was again the major industrial asset represented in additions comprising c65% of the total for the year. Within that category well over half of the transport assets, 45 (c65%) were signal boxes which had been nationally assessed. There was also significant designation activity for extractive industry (c10%) resulting in two new scheduled ancient monuments and associated listings relating to lead mines primarily in Derbyshire.

2014

Overview: A review of St Osyth's Priory in the East of England resulted in several amendments alongside a review of several Wivenhoe listings and enhancements to existing listings of footbridges over the railway in Amber Valley, Derbyshire. In addition, a review of Chatterley Whitfield Colliery resulted in enhanced and new listings; A significant number of 20th Century Roman Catholic churches were also added following a thematic approach to designation. Several amendments and additions involving; Prisons, Arts and Crafts houses in and around Minchinhampton, Gloucestershire are also noticeable and the beginning of the WW1 commemorative listing programme is also appreciable. This year also marked the commencement of the inclusion of Certificates of Immunity into the NHLE of which there was 1.

Industrial listings: Within a reduced number of industrial assets added to the list, Transport continued to be the major area of activity, again accounting for approximately 50% of the total. A total of 30 (75%) of the transport assets are railway infrastructure and all connected primarily with the North Midland line in Derbyshire.

2015

Overview: New listings for the Royal Artillery Training Camp at Okehampton are notable alongside, bridges in the south-west. In addition, the results of the Thematic

[23] *Carscapes;* Kathryn Morrison and John Minnis pub 2012 Yale

Survey of Interwar and "Improved" public houses appear in the NHLE. 37 Certificates of Immunity were issued for which two related to Industrial Heritage (1 gasholder and 1 power station).

Industrial Listing: Transport, and in particular railway structures primarily related to the Leeds and Selby line in Yorkshire, account again for the biggest percentage of assets listed in the year (c46%). However significant designation activity for Utilities (c24%) is notable. The majority of these assets (c 85%) are pumping stations for waterworks, the majority mainly in Staffordshire but also Somerset, and Wolverhampton.

2016

Overview: The outputs of the project on 20th Century public sculpture appears in the list alongside a considerable number of 19th and 20th Century Catholic churches. The Dartmoor Prison review and a large number of World War 1 memorials are also notable. 28 Certificates of Immunity were issued including five related to industrial assets (1 gasholder; 1 railway structure; a small forge in Sheffield; CEGB Headquarters and the Imperial Tobacco factory).

Industrial listing: This year represents a significant reduction for listing industrial assets in the period analysed, with a drop from previous years and only about a third of the total listed in 2011. Although Communication assets account for just under half the number, these are K6 telephone kiosks which, although exemplars of industrial design, are not necessarily regarded as being part of an industrial process. Within organic processing and manufacture a further four textile mills are added, all located in Lancashire.

2017

Overview: The review of Lipitts Hill Police Training Academy, Joddrell Bank Observatory, C20 Roman Catholic churches and Jewish cemeteries are all prominent, alongside military sites. 48 Certificates of Immunity were issued including 13 for Industrial heritage assets (3 gasholders in London; 3 power stations; 6 railway structures and 1 printworks).

Industrial listings: Although activity and new designations increase, the number of industrial assets is still modest. Transport again comprises a significant proportion of those added with structures associated with the Windermere Railway, the Dewsbury, Huddersfield and Manchester Railway and Yeovil and Weston-Super Mare all featured.

2018

Overview: A significant number of immediate Post-War listings, including several in Coventry, are in the additions and significant amendments to the NHLE for this year. In addition, there are reviews of listings in Great Yarmouth, the University of York, significant numbers of later C20 private and public housing, alongside Roman Catholic churches and the continuing First World War Commemorative

Programme. 61 Certificates of Immunity were issued including 24 for Industrial assets (17 railway structures; 3 power stations and 4 gasholders).

Industrial listings: The slow recovery in numbers of industrial assets added to the NHLE continued although the now familiar profile remained, with Transport assets comprising around 60% of the total. Railway structures again accounted for the majority of transport assets added (c69%) with their distribution covering the Leeds, Dewsbury and Manchester Railway areas. The next most prominent categories of industrial assets are extractive (13%) and inorganic processing (11%). Organic processing, including three further sites related to the development of the textile industry, comprises approximately 9%.

2019

Overview: A review of listings for Trentham Gardens and GWR structures in Swindon are noticeable alongside the continuing significant number of WW1 Memorials. New listings for RAF Faldingworth, a review of Duxford and amendments to listings in Coventry also feature. 41 Certificates of Immunity were issued including three for Industrial assets (one power station, a former pottery and a maltings shed in a boatyard).

Industrial listings: 2019 is the nadir for industrial listings in the period under consideration. It is also the year in which the dominance of Transport designations is also reduced, (c40%). Railway structures account for 40% of the Transport category, although the earlier geographical focus noticeable in earlier years is not present. The railway structures are also primarily stations rather than bridges or signal boxes.

2020

Overview: New entries include urban registered landscapes associated with private and public housing schemes, mainly in London, alongside some commercial landscapes. There are enhanced listings for GWR buildings in Swindon, Elsecar Ironworks and additions and enhancements following a thematic assessment of Quaker Meeting Houses. Several listings also related to Black Holt former Atomic site. 32 Certificates of immunity were issued which included two for Industrial assets (1 railway station and cooling towers at a power station).

Industrial Assets: The number of industrial assets rose, although is still well below levels reached in 2015 or earlier in 2013. It is the first year in which the majority of industrial assets are within the Utilities class, although this is because of a large number of sewer vent pipes associated with a corporation sanitation scheme in South London, which affect the statistics. Railway designations are modest, the lowest in the decade; but within organic processing two further textile sites are added and the nationally significant site of Elsecar ironworks is also comprehensively assessed.

4.9 A summary table of the numbers of Industrial Asset types added to the NHLE for the period is set out below. The detailed analysis of the amendments to the NHLE from 2010/1 is contained in Appendix 5. However, during the period under

consideration a further 51 Industrial assets were granted a Certificate of Immunity from listing. This brings the total number of industrial assets considered for designation to 1022.

Year	**Extractive**	**Utilities**	**Transport** *(milestones)*	**Comms** *(K's 1-8)*	**Organic Process**	**Inorganic Process**	***Total***
2010	1	16	63 *(50)*	62 *(62)*	5	3	150
2011	4	11	68 *(31)*	22 *(21)*	17	11	133
2012	0	13	89 *(24)*	8 *(7)*	5	6	121
2013	14	9	76 *(2)*	8 *(7)*	5	7	119
2014	10	6	41 *(5)*	10 *(9)*	11	2	80
2015	1	21	39 *(4)*	4 *(4)*	11	10	86
2016	0	9	9 *(2)*	20 *(20)*	6	6	50
2017	0	7	28 *(11)*	23 *(23)*	5	0	63
2018	9	4	42 *(8)*	3 *(3)*	6	8	72
2019	1	1	15 *(4)*	5 *(5)*	11	5	38
2020	3	28	10 *(2)*	3 *(2)*	7	8	59
Total	43	125	480 *(143)*	168 *(163)*	89	66	971[24]

Table 4.2: Industrial assets designated in the last decade by type *nb 2010 is June- Dec*

4.10 The detailed analysis undertaken on the NHLE amendments also identified 81newly designated assets that are part of the wider legacy of our industrial past; these include for example the Josiah Thomas Memorial Hall in Camborne, Cornwall, a former working men's club built in 1872 for tin miners and Dalton Grange, Huddersfield of 1870-1, designed by John Kirk; which has significant historic interest through its association with the local industrialist and Mayor of Huddersfield Henry Brooke as well as through its later use as a social/gentleman's club for the research chemists and chemical engineers of the Dalton Works. There is no obvious pattern or correlation with the rate of these additions and the rate of additions of Industrial assets based on materials and process outlined above, but the annual totals are as follows:

- 2010 *(June-Dec) 2*
- 2011- 6
- 2012- 6
- 2013- 15
- 2014- 1
- 2015- 9
- 2016- 14

[24] This table includes an additional 150 records from 2010, not included in table 4.1

- 2017- 9
- 2018- 12
- 2019- 4
- 2020- 3

4.11 A simple overview of the approximate proportions of listings by Concept class was provided by Luke Wormald in July 2020[25] which enables a comparison with the assessment of the national list profile published by English Heritage in 2009, which is an update of figure 3.3. This is set out below.

2008 National List Profile	**2011-2020 amendments profile**	**Difference**
Domestic 38%	Domestic 8.21%	-c75%
Agriculture and subsistence 12%	Agriculture and subsistence 3.74%	-c66%
Commercial 8%	Commercial 3.45%	-55%
Transport, communications, maritime 8%	Transport, communications, maritime 12.09%	+c50%
Religious, ritual and funerary 7%	Religious, ritual and funerary 6.82%	No significant change
Gardens, parks and open spaces 6%	Gardens, parks and open spaces 6.94%	+ c16%
Commemorative 4%	Commemorative 39.75%	+c1000%
Industrial 2%	Industrial 1.78%	No significant change
Recreational 2%	Recreational 3.65%	+c75%
Civil, health and welfare, defence 2%	Civil, health and welfare, defence 5.21%	+c150%
Education 2%	Education 3.08%	+c50%

[25] The results are heavily caveated because there are overlaps of the Concept Classes, for example a Farmhouse is in both 'Agriculture' and 'Commercial' and so on, although this was also the case for the earlier analysis provided in the Cherry/Chitty reports.

Water supply and drainage 1%	Water supply and drainage 1.38%	+ 33%
Other (unassigned) 8%	Other (unassigned) 3.80%	-c60%

Figure 4.4 Comparison of list profile for NHLE in 2009 and Amendments 2011-2020

4.12 A comparison of the percentages against those provided for the national list in 2008 shows significant differences in the distribution of asset type being amended. It is important to note the caveat regarding overlaps of asset class but what is illustrated are very general trends in terms of asset types being included. The World War One Commemoration has obviously been a substantial anomaly, radically changing the profile of the amendments. For industrial assets based on Raistrick definitions (Industrial, Transport, Communications and Maritime as well as water supply and drainage) the figure of 15.25% in the decade of amendments undertaken following the Cherry/Chitty report of 2010 is significantly above (c30%) the 11% total for the national list in 2009.

4.13 The rate of additions and significant amendments to the NHLE over the 10-year period also shows the influence of the World War 1 commemoration,[26] when over that period c9142 such changes were made to the list. This compares with 2,425 additions of all types to the Lists during the period May 2005-May 2010[27]. The annual rate of additions and significant amendments has therefore risen from approximately 500 per annum for May 2005-May 2010, to approximately 900 per annum for 2010/1-2020. If the anomalous year 2011 and rapid increase in such additions and amendments and greater activity for 2015-2018 associated with the WW1 Commemoration are removed, the annual rate for additions and significant amendments in the remaining years is still c680 and therefore approximately 25% higher than the annual figure for each of the years 2005-2010. A significant percentage of the entries in the period 2011-2020 have been enhanced listings or amendments to existing entries on the list (approximately 2700), but over the same period 821 industrial heritage assets have been added to the NHLE, a figure which includes 163 telephone kiosks and 143 milestones and other street furniture.

4.14 It has also been possible to undertake an initial assessment of how far the curation of the NHLE in the period 2010-2020 has responded to the concerns raised by respondents in 2010. *(paragraphs 3.11-3.12)* Without detailed evidence relating to the extent of the existing resource for industrial assets on a regional basis, it is difficult to provide substantive evidence that significant progress has been achieved with designating 19th and 20th century manufacturing in the North-West, or car

[26] 2011: *912 amendments*; 2012: 695 *amendments*; 2013: *640 amendments*; 2014: *690 amendments*; 2015: *1043 amendments*; 2016: *1432 amendments*; 2017: *1177 amendments*; 2018: *1173 amendments*; 2019: *737 amendments*; 2020: *642 amendments*

[27] *Cherry/Chitty et al 2010 Page 90 note*

manufacturing in the Midlands. But it is possible to examine whether there has been a response to concerns regarding under representation of assets by period and some building types *(see para 3.11 above)*.

4.15 The date profile of new designations over the last decade is markedly different from the national profile as commonly understood. The number of assets added dating from the Victorian period almost exactly matches the total for the three earlier periods combined *(943 and 940 - see table 4.5)*. Taking out the new assets added as part of the World War 1 Commemoration, the figure for 1900-1949 (Edwardian and Inter-War) is still substantial and far exceeds the totals for the earlier periods. There has also been significant Post-War designation activity which means that the number of 19th and 20th century assets designated in the last decade is well over double the number of assets from the period up to 1800. The thematic listing programmes covering schools, Post-War housing, libraries, meeting houses and Roman Catholic churches all cover areas of perceived weakness; whilst the designation of industrial assets includes a large percentage of transport buildings, which was another area of weakness identified in the earlier report. Having examined all of the entries for the last decade, the number of churches, civic buildings and late 19th and early 20th century private houses and commercial buildings included in the total is considerable. This does not mean that the designation coverage for the Victorian, Edwardian, and Inter-War periods is nationally comprehensive, but there has been a noticeable shift in the date profile of listed buildings being added to the NHLE.

Year	**Pre-1700**	**1700-1799**	**1800-1839**	**1840-1899**	**1900-1949** *(WW1)*	**1950-2000**
2011	42	104	80	160	151 *(32)*	41
2012	29	37	62	104	168 *(46)*	39
2013	27	18	22	103	125 *(38)*	46
2014	17	29	42	52	177 *(97)*	25
2015	39	23	34	91	529 *(421)*	47
2016	29	15	33	101	814 *(722)*	75
2017	25	13	16	80	736 *(638)*	45
2018	31	35	23	76	673 *(618)*	62
2019	25	18	17	59	368 *(312)*	28
2020	19	30	19	104	171 *(115)*	24
Total	**273**	**322**	**348**	**940**	**3912 *(3039)***	**432**

Table 4.5: New listings over the last decade by period

4.17 The date profile of other types of designation, primarily Scheduled Ancient Monuments and Registered Parks and Gardens is not as relevant as it is for listing, but there has been increased designation of monuments of "modern" periods from 2013 onwards.

Year	Pre-historic	Roman/ Romano-British	Anglo-Saxon	Med	C16-7	C18	C19	1900-1920	1920+
2011	3	5	-	4	1	1	1	-	-
2012	2	4	2	8	2	1	3	2	-
2013	7	2	-	13	7	3	5	-	15
2014	19	3	-	11	-	3	2	1	4
2015	4	5	-	6	1	2	9	-	4
2016	11	3	1	7	2	4	-	2	3
2017	3	2	-	3	-	-	1	3	1
2018	5	4	1	4	3	1	2	2	1
2019	6	3	1	5	1	-	9	2	5
2020	7	3	2	4	3	2	4	-	3
total	**67**	**34**	**7**	**65**	**20**	**17**	**36**	**12**	**36**

Table 4.6: New Schedulings by broad, primary period from 2011-2020

4.18 The number of Parks and Gardens registered each year is much more modest but the profile also shows an increasing number of assets for the later periods. The substantial number of landscapes from the latter half of the 20th Century added to the NHLE in 2020 *(20 in total)* does radically change the profile for the period 2011-2020.

Years	C17	C18	1800-50	1850-1900	1900-50	1950+
2011-2020	2	13	10	12	22	30

Table 4.7: New Parks and Gardens registered from 2011 by primary period

4.19 Therefore an initial assessment of the response to the general concerns raised by the Saunders' Report (2019) regarding the coverage of Industrial Heritage confirms there has been designation activity across all of the Raistrick industrial types *(table 4.2 above)*. Further analysis within each asset type has been undertaken which considered date profile and geographical spread of industrial assets designated within the last ten years. The results of that analysis are summarised below by Raistrick category.

4.20 Extractive: The 43 additions and significant amendments and to the NHLE are almost equally divided between listed buildings and Scheduled Ancient Monuments. The SAM are mainly related to the lead industry covering the period from the 17th to the early 20th centuries and all but one is located in the East Midlands. The vast majority of the listed buildings relate to the Coal industry covering the period from the mid-19th century to the mid-20th century. Ten of the listings are located in the West-Midlands and five are in Yorkshire. Other extractive industries include Copper, Tin and Zinc (6 sites in total) all located in the South-West and three sites related to the clay industry and again mostly located in the South-West.

4.21 Utilities: The 125additions are all listed buildings and comprise 41 for the gas industry; 26 for electricity; and the majority (approximately 50%) for Water and

Sewage. The gas related additions are overwhelmingly lamp standards of late 19th Century date and it is similar for assets related to electricity. These are the more visible products of the development of municipal power supplies, which later became national. The sites of production of power, gas works and electricity stations are less visible and probably already vanished. Approximately half the assets listed in the Water and Sewage category relate to sewer vent pipes in one London Borough; although the remainder relate to water pumping complexes largely in the Midlands and dating mainly from the latter half of the 19th and early part of the 20th centuries, which augment those already listed.

4.22 Transport: In the analysis this industrial asset type has been further defined into railways, canals, maritime and road. The transport asset type as a whole is the one most represented in designation of industrial heritage in the last 10 years by a considerable margin, although the reasons for this dominance are not entirely clear. Transport accounts for over 50% of the industrial assets added to the NHLE over the last decade and contains approximately four times the number of the next numerous asset types, Utilities and Organic Processing *(Table 4.2)* By far the greatest percentage of the transport assets themselves (c50%) relate to railways, with canals accounting for c7% and roads accounting for c32%, although that figure is misleading *(see below)*.

Canals: The 30 new listings and significant amendments for canals and associated structures cover the period from 1770-1830 and are geographically well spread, covering 18 Canal Companies with a slight majority located in the South-West.[28] There is no discernible pattern to the designations which appear largely piecemeal.

Roads: Within the road category the majority of new additions and significant amendments are actually milestones associated largely with the turnpikes, 143 out of a total of 177. They therefore often illustrate improvements to the transport network related to developing industry, for example mining in Cornwall; but intrinsically they are less industrial in character and could equally be considered as being associated with industry rather than being directly industrial assets in themselves.[29]

Railways: From 2010/11-2020 approximately 249 railway assets have been added to the NHLE, the majority listed but including one SAM. Bridges, viaducts and tunnels account for 137; signal boxes 55 and stations and other structures total 57. The majority of the bridges and viaducts listed date from the 1830's and 1840's, which was the pioneering period for the development of railways. For the period 1850-1900, 11 bridges or viaducts etc have been added. However, later railway infrastructure in the form of signal boxes is well represented and date from the

[28] The companies are: Thames and Medway Canal; Pocklington Canal; Kennet and Avon Canal; Stroudwater Canal and Navigation; Manchester, Bolton and Bury Canal; Coventry Canal; Staffordshire and Worcester Canal; Shropshire Union Canal; Macclesfield Canal; Grantham Canal; Chesterfield Canal; Lancaster Canal; Bridgewater Canal; Birmingham and Fazeley Canal; Thames and Severn Canal; Arun Navigation; and Ellesmere Canal

[29] 49 milestones are 18th Century and 64 are 19th Century. The vast majority (86) are in the South-West and particularly Cornwall. Smaller numbers are listed in the South-East (6); East Midlands (6); West Midlands (5) and the East of England (5).

1870's up to 1940. The majority of the signal boxes added to the list are from the 1870's and 1880's, 32 (or approx. 58%); with 10 (or approx. 18%) dating from the 1890's, 5 (or approx. 9%) from 1900-10 and 7 (or approx.12%) from 1910-1930.

The Railway assets are located across the country illustrating the development of the system from early railway companies and their successors. Approximately 35 lines are represented (Appendix 9). The biggest number of signal boxes are located in the South-East Region, followed by the North-West, South-West and the West Midlands. Other regions of the country have much smaller numbers (less than 5 each). The other railway assets that have been listed are mainly stations and goods warehouses, with a date range from 1842 right up to 1947.[30] A significant percentage of the bridges, viaducts, stations and other structure added to the list are in Yorkshire (20%) and the East Midlands (20%)[31]which was linked to the development of national programmes of improvement to the railway infrastructure.

4.23 Communications: The overwhelming majority of these industrial assets (163 approx. 99%) are telephone kiosks, ranging from the early stages of the public communications system, the K1, through to the later 20th century examples; the K8 dating from the late 1960's. They are included as, perhaps, the most familiar example of British industrial design, recognised nationally and indeed internationally. The remaining assets are three, later 19th Century Post Office buildings and two recording studios. The development of radio and other forms of communication, for example radar, is allied to military development and therefore generally not considered by this report. Earlier forms of communication, including semaphore or signalling by physical methods had largely developed before the period of study for this report.

4.24 Organic processing and manufacture

The two most significant areas of designation for this industrial assert type are industries based on grain and those based on cotton/wool. Other areas of organic processing and manufacture are much less significantly represented.[32]

Textiles: Within this category entries cover carpets, woollen (worsted) mills, cotton mills and integrated cotton mills. In total 33 new assets have been added dating from the later 18th Century through to the early 20th. The majority of the assets (13) fall into the period 1840-1900, which can be regarded as the peak period for the industry.[33] Geographically, the majority are located in Yorkshire and the North-West

[30] The early 20th century stations are those on the London Underground, alongside Watford Station 1925 and Otterington Station 1932. The date of stations and other assets listed are: 1840's *10;* 1850's *2;* 1860's *6;* 1870's *5;* 1880's *9;* 1900's *2;* and 1920-30's *2.*

[31] The geographical distribution for railway structures other than signal boxes is: South-East 25 (14%); South-West 31 (17%); Yorkshire 36 (20%); North-West 27 (15%); East-Midlands 35 (20%); West-Midlands 11(6%); East-England 10 (5%); London 18 (10%).

[32] Fish processing: 6 designations; other food related: 5 designations

[33] The date profile is 1700-1800 20% (7); 1800-1839 25% (8); 1840-1900 40% (13) and 1900-1930 15% (5)

(80%) with the remainder mainly in the South-West and the East Midlands.[34] This suggests that some of the deficit identified in relation to the geographically based project on Textile Mills (Cherry Chitty Report project number15) has been addressed. However, at present, the textile that does not appear is Silk, particularly with reference to Cheshire and the North-West.

Grain: Approximately 29 new assets have been designated with the majority related to flour (15 corn mills) or beer (11 maltings) production. Two breweries have been added.

4.25 Inorganic processing and manufacture

Within the inorganic processing assets type there were two main recurring areas of manufacture and processing: *metals and chemicals.* Other manufacturing industries do appear but in much fewer numbers[35] *(Appendix 5)* There are usually only one or two designations in the year for the other industries so geographical distribution is of limited relevance. The designations in the first two asset types are greater in number and can be analysed further.

Metals: There are 12 assets added over the period 2010-2020, comprising 10 listed buildings and two SAM's. The majority (50%) are iron foundries or manufacture including early nail-workers' workshops. Two relate to the steel industry in Yorkshire, and the remaining assets are for the manufacture of Tin, Gold and Silver.

Chemicals: 16 assets have been added, 12 listed buildings and four SAM's. Seven are related to weapon manufacture and explosives, and six are limekilns; three of which are in the South-West. The majority of the assets (7 out of 12) are in the South-West.

4.26 An analysis of the industrial designations in the context of the deficits identified in the Cherry/Chitty Review of 2009 reveals that potentially they have been reduced over the course of the last decade. Without a specific cross reference with Step 4 policy decisions the extent of the reduction cannot currently be definitively quantified. However, designation for extractive industries, particularly coal and lead, and inorganic processing, particularly Gunpowder and textiles, have been significant.[36] It is reasonable to assume that the additional Scheduled Ancient Monuments over the last decade were identified as part of earlier work so the total deficit in terms of their numbers will probably have reduced by 20 (now 573). It is less certain that the additional listed buildings can be so simply correlated. This was an issue identified by Cherry/Chitty in their examination of designations for the Lime, Cement and Plaster

[34] The geographical spread is South-West 6% (2); East midlands 6% (2); London 3% (1); West Midlands 3% (1); Yorkshire 40% (14) and North-West 40% (13)

[35] Lime/Cement *(2011; 2014; 2015; 2018);* Car manufacturing *(2012; 2013; 2015; 2018);* furniture *(2013; 2015);* net and cordage *(2013);* computers *(2013);* millinery *(2014);* paper and printmaking *(2015);* arms manufacture *(2016; 2018);* shoes *(2016);* cycles *(2018);* engineering *(2020);* and pottery *(2016; 2018)*

[36] *Coal* 12 listed buildings and 1 SAM; *Lead* 7 listed buildings and 6 SAM; *Zinc*1 listed building and 4 SAM; *Iron* 6 listed buildings and 2 SAM; *Gunpowder* 4 listed buildings and 5 SAM; *Water* 16 listed buildings*; Textiles* 28 listed mills and 2 SAM

industries. If sites rather than individual entries are calculated, approximately 70 additions can potentially be related back to the earlier deficits which would represent a possible reduction of 45% (88); however, this should be approached cautiously as it could be much less than that. This demonstrates the importance of being able to explicitly cross reference with the Step 4 decisions.

Sample list Profiles: An analysis of asset date and class

4.27 It should be noted that in searching the NHLE to provide individual list profiles the current local authority administrative boundaries, many of which are the result of subsequent amalgamation of districts and boroughs into a new Unitary authority do not always align with historic urban districts or boroughs in existence at the time of earlier listing surveys. The vagaries of the NHLE search facility means that it is difficult to be certain that an advanced search based on the name of an individual town within a much larger Unitary Authority is an accurate reflection of what was the former "Greenback" or hard copy of the list and therefore produces reliable results. In consequence, one of the first steps of the sample list profiles was to outline the history of local authority governance of a given area to assist in understanding the potential impact upon the date of any resurvey or its extent. In the sampling of towns on the Government's100 Industrial Places list, where dedicated resources for regeneration are being targeted, the lack of a clearly defined boundary for the town within that project, means that the correlation of this analysis to the potential resource that may be the subject of regeneration effort is further compromised, affecting its usefulness. Nevertheless, it remains of some assistance in identification of potential areas where further investigation of the existing industrial heritage might be prioritised in advance of Government backed regeneration, thereby helping the project to be more efficient and responsive to character of place.

4.28 Using the Cherry/Chitty 2010 Review of Lists as the basis, the following factors informed the selection of potential locations for further study:

- Perceived quality of list;
- Geographical spread combined with different industries;
- identified Heritage Action Zone (HAZ) or place with identified Industrial heritage potential in the Government list of 100 places in the Towns Fund

4.29 *Perceived quality of lists*: The Cherry/Chitty report concluded that there was no direct correlation between age of list and adequacy of coverage or quality. The earlier lists however, did have issues with length of descriptions and were often subject of most complaints and subsequent amendments. The perceived quality of a list comes from two principal sources, the Local Planning Authority (LPA) using the list (often via the Conservation Officer) and in-house EH/HE knowledge, mainly via designation teams in their various iterations. A complicating factor is the identified tension between

local interest and the role of national listing which seems to underlie many of the complaints about quality and does not of itself automatically indicate a deficit. Therefore, to try and tease this issue out in greater detail, the candidate locations were selected to include an example where, specifically, Industrial heritage coverage is identified as missing *(South Ribble)* and one where it was identified as strong *(Stockport)*.

4.30 A further sense check regarding quality of coverage could be achieved by taking an LPA which has a well-curated and rigorously selected local list and considering examples of industrial buildings within that local list against the selection guidance. A potential candidate is Cheshire East Unitary Authority which has been taking part in the project on Heritage Protection Reform compliance from 2011 and integrating local lists into the Historic Environment Record.[37] Previously, the record contained no information on locally designated sites, especially those buildings and structures included on Local Lists, which are recognised as being of material consideration in the planning process. The constraints of this project have not allowed for that comparison to be carried out here. Another method of exploring this issue between local and national interest would be to examine applications for designation that involve Industrial assets to see what proportion were rejected and on what grounds. A comparison of the percentages of rejections for each concept class would also assist in showing if there is some "institutional bias" against industrial heritage.

4.31 The initial candidates for profiling suggested as part of the consultation with Historic England colleagues were refined and now include one from each of the following areas: East of England; North-West; South West; and the Midlands. One list, South-Ribble, was in response to its identification as being deficient in both industrial and later 19th and 20th century designations. Stockport was also selected because it was identified in the responses as having good coverage of industrial buildings, which provides a useful benchmark against which to compare other lists in areas of similar character or history. Camborne was selected for extractive industries and mining; Walsall for inorganic processing and manufacture (*leather and engineering*); and others including Dudley, Mansfield and Walsall as they were included on the 100 Places list. In total, as part of this report 12 lists were profiled. *(Appendix 6 Sample of List Profiles and Appendix 8 Macclesfield case study)* which enabled a series of conclusions to be drawn as to the effectiveness of profiling in the identification of potential deficiencies in designation of industrial assets.

4.32 The results of the list profiling for South Ribble District (*Appendix 6 list profile # 1*) and Stockport (*Appendix 6 list profile # 8*) confirmed the feedback regarding strength of industrial listings reported as part of the Cherry/Chitty Review of the Lists. The South Ribble list contained only four industrial assets, comprising less than 3% of the total of a list that was the product of surveys in the 1950's and 1960's with the main

[37] 6002 – Towards HPR compliance Local lists in Cheshire: Case Study of the Cheshire Historic Environment Record: Moya Watson and Rob Edwards, Senior Historic Environment Records Officers, Archaeology Planning Advisory Service Jill Collens, Project Manager – Archaeology Planning Advisory Service

re-survey in the 1980's. The overwhelming majority of the assets listed (90%) date from before 1850, with less than 10% dating from the later 19th and 20th centuries. Although the decline in industrial activity had been severe in the area during the course of the later 20th century, this is nevertheless surprising. By contrast, the Stockport list includes 83 industrial assets comprising approximately 21%. The Stockport list is the product of surveys in the 1960's and the 1970's but significantly, also has considerable additions following the 1980's. it is these subsequent additions, particularly those in the 1990's that focussed on industrial assets, and in particular canals, railways and textile mills. This supports the consultation response from the local authority regarding the strength of the list for industrial assets and whilst the profile for the list shows that approximately 75% of the assets date from before 1850, a significant percentage, the remaining 25% are later 19th and 20th century buildings and structures.

4.33 Although the sample of list profiles undertaken is limited it does appear that the South Ribble list along with Thurrock represent the lower limits for the percentage of industrial assets in an individual list which is in single figures. This conclusion has to be caveated because creation of the list profiles has demonstrated that the distinct individual character of each list means that like for like comparison is simply impossible. The approach to selection, or description of assets once selected, is inconsistent between lists, with examples including failure to define precisely a building type or failure even to provide dates for assets in some cases.

4.34 In the Rochdale list, for example *(Appendix 6 list profile #7)* there are many examples of entries where potentially the domestic phase of the textile industry is identified in the description ("weavers windows") but equally a considerable number where this feature is not referred to, although the image associated with the entry clearly reveals such "weavers windows". It is also not entirely clear whether all of the windows were indeed definitively illustrative of weaving workshops as opposed to other types of domestic workshop, so the designation of individual asset types is difficult to ascertain with certainty. Using the NHLE search facility and recording in detail both those entries where the description records such features, along with those entries where such features are apparent in the image but not in the description, the percentage of industrial assets as a proportion of the Rochdale list rises to approximately 22%; in other words, higher than that in the Stockport list. The percentage of assets dating from after 1850 is also higher (28%) than that in Stockport and if the percentage of assets dating from after 1700 is considered (approx. 78%) in the context of the history and development of the town, the profile does seem to be what would be expected.

4.35 What the list profiling exercise does appear to deliver are early indications of unexpected anomalies in both the date profile of assets designated and or potential anomalies in asset type being selected. The majority of the lists examined produced a

profile that contained a percentage of industrial assets ranging from c10% to c20%[38] which would seem to accord with the analysis for the national list using the Raistrick categories *(see paras 3.15 and 4.12 above)*. An outlier appears to be Sandwell where 38% of the entries are industrial and principally (over 80% of the industrial assets) related to canal infrastructure. It would seem therefore that a single figure percentage for industrial assets in a list profile, and especially one below 5% could indicate a potential deficit. This conclusion has to be treated with suitable caution as the analysis is based on a small sample and in the context of the inconsistencies identified above, but it does appear that a double figure percentage is normally to be expected, which applies to larger lists or a small list like Blackpool.

4.36 The initial analysis of 12 profiles demonstrates that there is generally a correlation between the potential extent of under designation of industrial assets and the history of designation for the locality. The amelioration of this initial weakness by spot listing previously depended upon an active LPA or amenity group; although this has become less influential with the introduction of a validation sift undertaken by Historic England for the curation of the list which uses a risk-based assessment. Thematic listing reviews, for example Inter-War public houses or signal-boxes, have also helped to address some of the weaknesses identified in the Cherry/Chitty 2010 report. However, it is clear that the lists with the greater number of early entries are those where the wider industrial legacy is likely to be unrecorded, and searches using the asset types of the NHLE in isolation are not a reliable way of identifying where that wider legacy has already been acknowledged.

Macclesfield: A Detailed case study

4.37 Macclesfield was selected as the area for a case study *(Appendix* 7). This was for a number of reasons which included a well-defined industrial resource, associated with the silk and cotton industries. The extensive research and analysis of the East Cheshire Textile Mill Survey published in the RCHME volume of 1993 *(Calladine and Fricker)* included not just on-site processing but also administration buildings on separate sites and associated workers housing and community buildings, including libraries and places of worship. The breadth of the survey and gazetteer of mills provides a base from which to consider both the loss of the resource but also the designation of what remained.

4.38 Macclesfield was a borough from 1974 until 2009 which included the towns of Bollington, Knutsford, Macclesfield and Wilmslow. Previous to that Macclesfield was Municipal Borough and Bollington was an Urban District surrounded by the Macclesfield Rural District, all of which merged in 1974. Under more recent local government re-organisation Cheshire East Unitary authority was formed in 2009.

[38] South Ribble 3%; Blackburn with Darwen 12%; Blackpool 12%; Camborne 24%; Dudley MB 15%; Mansfield 11%; Rochdale 22%; Stockport 20%; Sandwell 38%; St Helen's 17%; Thurrock 2.5%; Walsall 20%;

4.39 Situated at the edge of the Cheshire plain adjacent to the streams of the Pennines and Peak District, Macclesfield was able to use the natural topography and resources to develop a textile industry of silk and cotton manufacture. Macclesfield on the banks of the River Bollin and Congleton on the River Dane were both towns on the principal route between Stockport, Manchester and the north and Leek, Derby and the Midlands to the south. Both towns had flourished as trading centres from the medieval period for the produce from the adjacent arable lowlands and pastoral uplands.

4.40 18th Century development of mills in Macclesfield and Congleton were located by the streams providing water power to some of the earliest powered factory buildings in Britain, later to house mechanical silk throwing machines (c1744) and including mechanised cotton production from 1784. This expansion and that of the 19th Century required improved transport systems including turnpiked roads in the 1750's and 1760's along with a canal network encircling Cheshire which was completed in 1830 and provided a link with the Trent and Mersey systems. The first railway in East Cheshire was built in 1845 when the Manchester and Birmingham Railway reached Macclesfield, to be followed in 1849 by the North Staffordshire Railway linking Macclesfield and Congleton to London.

4.41 Macclesfield Municipal Borough was surveyed immediately after the war having one of the earliest lists produced in1949. The 1949 entries comprised mainly early and mid-18th century polite architecture, reflecting in part the town's most prosperous early period based on button making and silk weaving. These included the main church, a handful of larger houses from the early 19th Century and the Unitarian chapel. The "main" list for Macclesfield was undertaken in 1977 and a further urban survey of the town centre itself was carried out in the 1990's which allowed for RCHME findings to inform designation. Using the NHLE there are c234 entries for the former Municipal Borough area alone (which remained unparished as part of the Borough created in 1974). The majority of entries date from the 1970's (c60%) with a further significant number (c20%) dating from the 1990's. In both of these surveys 18th century buildings and structures, including mills and canals etc are significant components.

4.42 The list profile overall appears to reflect the historic development of the town, illustrating the development and wealth brought about by the silk industry in the C18 (the largely home-based industry) and reaching its' peak with industrialisation around the first half of the 19th century. Later developments of the industry are also represented along with the social infrastructure associated with manufacturing and industrial towns. These include non-conformist chapels, alms-houses and asylums, educational and civic buildings.

4.43 The buildings relating specifically to textile processing and manufacture include16 mills. The first was listed in 1949, then three in 1977; five in the 1980's (1982,1983

two in 1987, and 1989); and seven in the 1990's (five being listed in 1994). Nine of the entries reference the RCHME volume as a source. If you add the home-based element of the industry, for example weavers' garrets provided in terraced housing, which are not identified as industrial buildings in the statutory address (or presumably in any analysis based on concept class), there are a further 18 list entries. This means that the list includes assets related to textile processing and manufacture from the late 18th Century to up to 1877.

4.44 These assets equate to approximately 15% of the total list coverage being devoted to the textile industry. If all industrial assets are calculated (adding the 14 canal related listings) then the percentage rises to approx. 20%. There are also four entries that appear directly related to the textile industry in the town, including the private house of the Brocklehurst family, noted Silk manufacturers and at least one other silk merchant's house. St Georges House which is integral with adjacent weavers' cottages is also related as is the Commercial-Queen Street Mill (see below). These could also be considered part of the designation of the industrial legacy in Macclesfield. However, even without these assets the percentage of the Macclesfield List devoted to industrial heritage is significantly greater in percentage terms than the Industrial concept class recorded in national list profile in 2009 (2%) or indeed the profile for amendments over the period 2011-2020 at 1.78% (*figure 3.4*).

4.45 The Raistrick based approach, which includes transport and utilities etc produces the figure of 20% which is approximately twice the percentage for the national list (11%) and significantly higher than the 15% figure for the amendment profile 2011-20. *(paragraph 3.15 above)* All of these factors would appear to indicate that in terms of profile, both for asset type and period, the Macclesfield list is reasonably reflective of the local industrial character. This is not to suggest that further designation of industrial assets would be inappropriate *(see below)*, but if establishing geographical priorities for further designation was contemplated then this would be a factor to consider.

4.46 Following this desk-based assessment a visit to Macclesfield was undertaken. The RCHME volume East Cheshire Textile Mills gazetteer (1993) has about 100 mills listed for Macclesfield but many have now been demolished. However, there are a number of survivals that do not appear to have been designated, including Royal George Mill, Green St and Wood St. These are later examples that appear architecturally modest which may be why they have not been included. The only purpose-built warehouse for the sale of silk goods (Royal Silk Warehouse) is also an omission, although this may be because it has been unfortunately converted into a hotel. The Commercial Road-Queen Street Mill is also not explicitly listed, although as it is attached to the Bianchi showrooms (II*) it may be protected to a degree. Several of the list descriptions do not fully explore the mill complexes. Other omissions may be related commercial buildings from the 19th Century; although unlike larger industrial towns in Macclesfield the scale and degree of their architectural interest is more modest.

Summary on the use of list profiling based on examples

4.47 The use of list profiles in isolation to determine designation deficits for industrial assets is not robust because of the inconsistencies and variations identified above. However, the preparation of a profile will, as a first step, reveal what those inconsistencies may be and provide an early indication of how they may relate to the designation of industrial assets. A date profile which appears heavily skewed to one particular period, especially before 1700 for example, may well indicate a potential issue for coverage of industries that transformed from a domestic based pattern of production into a factory-based system following the industrial revolution; or for those industries and manufacturing that only developed in the latter part of the 19th and 20th centuries, for example car manufacturing. A profile may well also indicate whether the industrial coverage is largely confined to one asset type, for example canal infrastructure in the case of Sandwell, whilst being deficient in other types. Conversely, the preparation of a profile can indicate that industrial designations are in fact more widespread than at first appears to be the case; an example being the Rochdale list. A finding that industrial designation accounts for less than 5% of any list would seem to be a useful, initial indication that an area should become a priority for further consideration.

Industrial Heritage and the National Record of the Historic Environment

4.48 Although inclusion in the NHLE is regarded by many across the sector as the extent to which our Industrial legacy is protected, this only accounts for part of the picture. The primary focus of this report is the NHLE and particularly listing, but, as explained in paragraph *3.22 (above*) identification of industrial sites and assets within the NRHE as the national record, combined with information contained in local Historic Environment Records is also relevant.

4.49 The Cherry/Chitty 2009 report, including both the review and the discussion about the potential for future designation options, assessed whether the survey and analysis for each project was both comprehensive and authoritative. For the majority of the programmes where the surveys had been of suitable quality it was possible to move to Step 3 and report the extent to which there was a good understanding of the legacy of industry. When reprioritization for HPR effectively halted MPP and other Thematic Programmes in 2004, Step 1 reports had been produced on 33 industries and nearly 5000 sites and buildings had been evaluated in the field at Step 3.[39] Step 3 reports for those programmes involving industrial assets identified by Cherry/Chitty totalled 2,974. A search of the National Record of the Historic Environment (NRHE)

[39] HE carried out a project to ensure there was a record in the NRHE for every site in the MPP Industry Step 3 reports. Where there was a record already, we added in any additional information and added the report to the sources (whether we added anything new or not). If there wasn't already a record, we created a new one with the report as the source. This effectively created an index to all the sites in the reports which are in the HE library. This data is now being transferred to the HERs under HIAS so all of this with the references will be in the HERs. Historic England will still have access to our records internally as well as on the Heritage Gateway as either an HE research record or an HER record. Information kindly supplied by Martin Newman of Historic England March 2021

was therefore commissioned for this report to establish how far that information had been incorporated and was therefore available to assist in managing and conserving the industrial legacy of England whether formally designated or not.[40] The search *(Appendix 8)* provided c2530 entries covering a wide range of sites. Some of the sites have been designated but not all.

4.50 An initial analysis of the information provided was undertaken but explicit cross referencing of each entry to the Stage 4 report and subsequent designation where relevant was not carried out. The analysis undertaken was to determine the coverage of industrial sites using the Raistrick definitions. It should be noted that several sites in the NRHE have multiple entries and also multiple products, for example different metals at different periods[41]. The entries for several sites, especially non-ferrous metal extraction include furnaces, stamping mills, engine houses or fan houses, which were not recorded as separate building types in this analysis.

4.51 The analysis[42] revealed that the largest category of Industrial Asset type in the NHRE is Extractive Industries with over 60% of the entries. Inorganic processing was the next largest category with a particular focus upon lime, glass and gunpowder production. Power and Utilities were next, with a particular emphasis on Water and Sewage works. Transport and communications, alongside organic processing, were the smallest and relatively insignificant categories. Much of this information has already been incorporated into local HERS but all should be made available as part of the Historic England project to accession or integrate the NRHE into HER databases[43] which commenced in April 2019.

5.0 Moving towards a future assessment of priorities for designation

[40] Provided by Neil Guiden of historic England June 2020

[41] For several sites, mines were stablished to produce copper, but also produced tin and zinc, the emphasis changing at different periods. Tin or Copper mines also included chemical processes for the production of Arsenic so all of these industries are interrelated and numbers should be treated accordingly

[42] ***1 Extractive Industries:*** *Mining and Quarrying including:* Stone:175*;* Chalk/Flint: 9 China Clay: 1 Sand: 1 Coal: 335 Iron: 399*; Non-ferrous metals:* Lead 227; Tin mines 332; Tin stream or alluvial works 68; Copper 104; Silver 3; Gold 2; Tungsten 6; Aluminium 1; Manganese 6; Nickel 1; Cobalt 1 Antimony 6; Arsenic 26;
2 Inorganic Processing and Manufacture: *Metal based comprising:* Steel 10; Brass 30; Calamine (Zinc) 6; Zinc smelting 2; Tungsten 6; *Chemical Production:* Alum 38; Gunpowder 48; *other:* Lime 145; Cement 20; Ochre 3; Glass 104; Plaster/gypsum 17; Alabaster 1; Fibrous plaster 1; Flourspar 7; Textiles 4; Graphite 1; Slate pencils 1
3 Power and utilities: Water and Sewage Works 290; Electricity production 35; Watermills 6
4 Organic Processing and manufacture: Bone 1; Commercial Ice production 4; Domestic Ice house 57
5 Transport and Communications: Docks or wharves 3; Specialist railway 2; Road bridge 1

[43] *Data Supply and Reconciliation between NRHE and HERs Research and Development Phase Project 695* Final report By Crispin Flower, Mike J Lush Published 15 December 2017

5.1 The work carried out in this report in attempting to both scope and validate the extent of the designation deficit already identified for Industrial heritage resulted in a two staged approach. The first stage has been to examine the overview of strategic and thematic designation projects to provide the national framework for consideration of future priorities. In particular Appendix 3 of the Cherry/Chitty 2009 report. This provides not only an assessment of the then existing deficit but also an indication of relevance for each asset type when considering future designation. For example, Stone Quarrying, the Clay Industry and Iron Mining and Manufacture are all identified as strategic priorities.

5.2 Within that framework the development of the list profile as the next step has provided what appears to be a promising approach to establishing at a more local level an initial assessment of the likelihood for under designation with regard to industrial heritage. *(Appendix 6)* This profiling in isolation is not sufficient to provide a robust outcome, but if then cross referenced with the relevant Historic Environment Record, taking into account the results of the ongoing Historic England audit programme, a judgement can then begin to be formed on the likelihood and potential extent of any designation deficit. Steps 1, 3 and 4 can be carried out "in-house", by others in the heritage sector or the wider public. They can be undertaken either sequentially, or in the case of Steps 1 and 3 in parallel. Step 2 is more likely to be internal to Historic England.

Step 1	**Step 2**	**Step 3**	**Step 4**
Prepare list profile to identify extent of coverage by date range and industrial asset types	Cross reference with Cherry Chitty 2009 review conclusions regarding progress and relevance	Assessment of identification of Industrial heritage in relevant HER; taking into account the audit	Cross reference list profile results with HER results

5.3 In determining priority some degree of judgement regarding the weight to be accorded the results of each step will be required and further considerations including, potentially, consultation and an assessment of risk based upon the type of industrial asset(s) identified as lacking coverage will also be relevant.

6.0 Summary, conclusions and recommendations

6.1 The attempt to scope and validate the existence and extent of a designation deficit for Industrial heritage has revealed the complexity of the challenge. It has also demonstrated that at present it is not possible to provide a definitive prioritisation for future designation of these assets at present that can be regarded as totally robust. There are a number of further steps that can be taken in the short term that

will both further validate the extent of the deficit but also reduce it. These actions are included in the Recommendations 1-11 set out below.

6.2 However, the project has enabled the development of an approach which could potentially assist in the medium term with prioritising future designation, particularly for an area-based approach. Using List Profiling also offers possibilities to link to the wider place-based agenda and is not totally reliant upon resources from Historic England. The creation of a list profile can be carried out by anyone with a suitable level of experience and knowledge who has access to the NHLE, although support with interpreting the evidence may need to be provided. The approach also offers opportunities to encourage greater engagement with and understanding of the NHLE and its information.

6.3 The analysis and assessment undertaken has led to the following conclusions.

The scope of deficit: This is the most challenging issue to address. The perception of a deficit is deep seated and was probably well founded. A major step forward would be to promote the use of a common definition(s) of what is meant by Industrial heritage as well as promoting more widely the extent of current knowledge about existing recognition of the industrial legacy across the sector and informed communities.

6.4 *Validation of the perceived deficit:* The analysis undertaken as part of this project is far from exhaustive but it has been sufficiently detailed to demonstrate that the designation coverage is perhaps not as weak as commonly perceived. If the Raistrick categories are used as an approach, and designation other than listing in isolation is considered, then a different picture emerges. If the work on incorporating the previous information in Step 3 reports into the NHRE and subsequently local HER's is also taken into consideration, the recognition of the legacy of our industrial heritage is greater than perhaps commonly realised. This is not to say that it is perfect and there remain gaps. It is also very clear that the position is not consistent across the different types of industrial asset. Improvement of the perceived weaknesses of the NHLE has been achieved over the last decade which has also responded to concerns about both a bias towards earlier periods for designation and the type of assets that have historically been designated. It is always going to be the case that coverage will be imperfect and judgements will differ on its adequacy. However, further work is required to demonstrate to the sector and beyond that a consistent approach to designation of different assets types is undertaken as far as possible.

6.5 *Future priorities for designation of industrial heritage:* As stated above it is not possible to suggest definitive future priorities but the analysis carried out in this report indicates that not all industrial asset types are either equally vulnerable or under-designated. Transport infrastructure and particularly railways and canals have

accounted for the largest percentage of additions to the NHLE in the last decade. These are additions to an already well recognised base. Many of the assets relating to the actual physical infrastructure, including bridges and viaducts, or locks and basins are intrinsically more easily appreciated and physically robust than assets related to for example inorganic and organic processing, or workshops. This would seem to suggest that transport assets may at present be potentially a lower priority for future proactive designation; although for railway and canal enthusiasts that will obviously not be a conclusion with which they would agree. However, given the fast-changing nature of demands in this area, circumstances can change and therefore any assessment of competing priorities has to be kept under close review.

6.6 The other asset type that has generally been authoritatively examined and recognised relates to extractive industries with the exception of stone and iron. The much longer time depth associated with this asset type means that the resource is likely to be much more extensive, but for many of the most important sites, recognition of their importance seems to be in place, even if there is a designation deficit and many MPP programmes were left incomplete. Many of these sites are also potentially suited to alternative management that is not reliant upon designation and if appropriately recorded within the relevant HER, should benefit from some identification; and which does not preclude subsequent designation in the face of an identified threat. This is not to suggest that further formal designation is not required but prioritising this asset type in the face of competing industrial asset types and in the context of limited resources does not perhaps, in my view, appear to be justified. Again, opinions will differ on this conclusion.

6.7 The other industrial asset types that merit further consideration are Utilities, Organic and Inorganic processing and manufacture. Within those categories, assets related to water and sewage appear to have been well considered and although the MPP programme was not completed, there has been some subsequent designation across the country. By comparison, the identification of former town gas works or early electricity generation are less well covered. The designation of Post Offices in major urban areas almost exclusively concentrates on the architecturally elaborate administration or public facing elements of the complexes and exclude the functional elements, for example sorting sheds, loading bays and associated handling systems.

6.8 Some sectors of organic and inorganic manufacturing and processing, glass and brass for example, appear well understood and broadly appropriately designated, but for other sectors the picture is different. Metal working industries are an area for greater consideration. For assets relating to textile processing, the position is more nuanced, although implementing the policy decisions arising from the MPP programme would address the issue in the short term. The coverage of designation of textile mills in the North-West outside of Manchester and Leeds would appear to be an area that requires greater priority.

6.9 There are many examples of the earlier, domestic-based phases of development for several manufacturing industries, including textiles and metal-working, that are designated although not very visible as they are "disguised" by the inadequacies of both asset type identification and the quality of descriptions in the NHLE. As the results of continuing historic area assessments and research are produced for example *Roethe, J and Williams, M 2019 Central Rochdale, Greater Manchester Historic Area Assessment (Historic England Report Series 56/2019)* there are opportunities to review and improve upon the designation of industrial heritage. Strengthening the link between the assessment and designation outcomes, particularly committing to carry out the equivalent of the previous "Step 4" approach to a policy decision on designation in a timely fashion is vital.

6.10 The designation of industrial assets relating to important regional industries or specialisms is variable and depends in large part upon whether a Defined Area Survey (DAS) or its equivalent has been carried out in the past; for example, lace in Nottingham, millinery in Luton or furniture in Shoreditch. This type of industrial asset is perhaps vulnerable because of the combination of a lack of knowledge, the modest architectural scale and often utilitarian character of the resource and the extent of later adaptation, all of which have led to lack of recognition. The extent of the under-designation of this type of industrial asset is the one most likely to be revealed through the use of list profiling cross referenced to the results of a DFS or HAA. Ensuring that the results of these exercises are not "lost" within the day-to-day curation of the NHLE is a priority.

6.11 It is important to note that knowledge of and accessibility to information about England's Industrial legacy should improve over the next few years. The major 6-year project to transfer over 550,000 digital records relating to England's historic environment, which has developed since the 1980s from the first computerised National Archaeological and Buildings Records is a major step forward in the Historic England Heritage Information Access Strategy. It will see the responsibilities for maintaining, securing and providing access to this unique dataset transferred to local authorities. This will bring to an end the long-standing duplication of effort between national and local bodies and provide clarity for future researchers. Four HERs have completed the transfer, with another 14 HERs in progress. Improved access to much of the earlier information (where digitised) will be potentially a significant benefit for both the identification of the industrial legacy in England and how best to manage it. **Tackling the digitisation of "hard copy" information remains a challenge**.

6.12 The following recommendations are organised into immediate next steps, medium term objectives and those for the longer term. The longer-term recommendations necessarily become wider in focus as they relate to strategic issues that cannot be resolved without further thought and consultation both within Historic England and working across the heritage sector and beyond. The recommendations are:

Next Steps

Recommendation 1: Use existing research, including the analysis in this report and particularly the MPP Review Step 3 and 4 reports , to confirm the scope of the historically identified designation deficit. Once carried out prioritise the implementation of the outstanding listed building policy decisions.

Recommendation 2: Undertake a rapid overview of the remaining recommendations for Scheduling to validate that formal designation remains the appropriate level of protection, using a risk-based approach;

Recommendation 3: To ensure comprehensive capture of relevant information, cross reference remaining scheduling and listing recommendations with entries in the NHRE to ensure that notation regarding their status as non-designated assets of demonstrably equivalent significance to Scheduled Ancient Monuments is included, where appropriate, to assist in effective management for the future;

Recommendation 4: Carry out an analysis of decisions not to designate in the past decade to establish any potential inconsistencies with regard to treatment of asset type.

Recommendation 5: Make the resulting information including legacy documentation available to Historic England Staff and the wider public

Medium Term

Recommendation 6: Promote a sector framework for definition of Industrial assets beyond the specialist sector. This should be linked into the Industrial Heritage Strategy and could be promoted using the Industrial Heritage HELM training sessions

Recommendation 7: Develop a programme of local profiles for existing lists of geographical areas based on LPA boundaries

Recommendation 8; Link the programme of local profiles with Historic England work on local listing being promoted by Government and the places eligible for 100 Towns funding.

Longer Term

Recommendation 9: Look to amend deficiencies in recording of asset type in NHLE to provide greater consistency of asset type, aligned on the Raistrick or sector wide definition of industrial heritage;

Recommendation 10: Improve search facilities, especially consistency and reliability, for NHLE online to encourage access by both the sector and the public to information regarding England's Industrial legacy

Recommendation 11: Ensure appropriate integration of the medium and longer terms recommendations into the Historic England Industrial Heritage Strategy. This would be with a stated aim to lead a cross-sector discussion and thinking about the definition of industrial heritage- what is its legacy, how is it designated and celebrated, and encouraging a more holistic approach.