

GroundSure MapInsight User Guide

Version: Draft
January 2009

To be used with the
GroundSure MapInsight

GroundSure Limited

Level 7, New England House,
New England Street,
Brighton, BN1 4GH
Tel: 01273 819 700
Fax: 01273 819 550
E-mail: maps&data@groundsure.com
Internet: www.historicalmappacks.co.uk

©Copyright GroundSure Limited 2005. All rights reserved.

Contents

1. INTRODUCTION	4
2. WHAT IS A GROUNDSURE MAPINSIGHT?	4
3. WHY DO YOU NEED A GROUNDSURE MAPINSIGHT?	4
4. HOW TO ORDER GROUNDSURE MAPINSIGHT	5
5. PAYING FOR GROUNDSURE MAPINSIGHT	5
6. DELIVERY FORMATS	5
7. DATASURE METHODOLOGY & PROCESS	6
7.1 SCANNING	6
7.2 MAP REGISTRATION	6
8. COVERAGE	7
8.1 MAP EDITIONS	7
9. INFORMATION ON THE MAPS	9
9.1 DATE INFORMATION	9
9.1.1 Survey / Surveyed Date	9
9.1.2 Revision / Revised Date	9
9.1.3 Levelling / Levelled Date	9
9.1.4 Copyright Date (if present)	9
9.1.5 Edition Date	10
9.1.6 Addition dates (if present)	10
9.2 LEGEND INFORMATION	10
9.3 GRIDLINES	10
10. MAP ACCURACY	10
10.1 ABSOLUTE ACCURACY	10
10.2 RELATIVE ACCURACY	10
10.3 CURRENCY	11
10.4 SELECTION	11
10.5 GENERALISATION	11
11. LIMITATION OF USE	11
12. OUR TERMS AND CONDITIONS	11
13. ADVICE AND GUIDANCE	12
14. FUTURE IMPROVEMENTS	12
GLOSSARY OF TERMS	13
APPENDIX I – GROUNDSURE’S TERMS AND CONDITIONS	14

1. Introduction

The GroundSure MapInsight provides high quality Historical Maps that allows professional's to make rapid and informed decisions regarding the historical perspective of a study site.

The GroundSure MapInsight forms part of a suite of services and can be used either as stand alone report or in conjunction with the other reports to form a complimentary suite of products.

These complimentary Products are:

- GroundSure EnviroInsight
- GroundSure GeoInsight
- GroundSure MapInsight with Historical mapping at 1:10 560, 1:10 000, 1:2 500 and 1:1 250 scales.

This User Guide outlines the GroundSure MapInsight only. The User guides for our other services can be found online at www.historicalmappacks.co.uk.

2. What is a GroundSure MapInsight?

The GroundSure MapInsight is a user defined site centred set of maps that contains high quality information and it forms part of a comprehensive suite of services that GroundSure provides to environmental professionals.

The GroundSure MapInsight provides a set of working documents for environmental professionals, to identify the historical nature and potential liabilities of a study site.

The historical maps were sourced from both academic and commercial institutions in the UK and were scanned at 600dpi at both greyscale and in colour.

In preparing a GroundSure MapInsight, GroundSure accesses a comprehensive range of historical mapping archives that provides OS mapping from the 1840's to the most up to date versions of the Ordnance Survey current maps.

The GroundSure MapInsight is ordered via the online ordering system. The user can either draw the study site boundary on the current mapping (provided from the Ordnance Survey Mastermap and 1:10 000 Raster map) or chose to carry out a search on a point location.

The maximum area that can be ordered via the website is approximately 10 hectares for larger sites please call the technical Helpline or email maps&data@groundsure.com.

The GroundSure MapInsight can be provided covering all available scales including 1:10 560, 1:10 000, 1:2 500 and 1:1 250 or as separate packs of large scale (1: 2500 and 1:1250) or as small scale packs (1:10 000 and 1:10 560).

The GroundSure MapInsight can be provided as A3 sheets printed at scale as PDF's or made available to download from our data warehousing facility.

3. Why do you need a GroundSure MapInsight?

For Environmental Professionals, a comprehensive history of a site is invaluable. The GroundSure MapInsight presents large and small scale mapping from the beginning of the OS County Series archive record. Irrespective of the industry, mapping information is an important source of past land use evidence. The Ordnance Survey who has been responsible for the mapping of the UK since 1791

GroundSure MapInsight User Guide

is a world leader in data recording, the information they recorded on maps is among the impartial evidence of our past.

For the non environmental professional, GroundSure's MapInsight can provide a look into the past that gives you a special insight into the present. Amateur Genealogists, archaeologists and sociologists to name a few can find the answers they are looking for in a GroundSure MapInsight. GroundSure's MapInsight forms an ideal basis for research into the past.

GroundSure provides Historical Maps of reliable source data with no added interpretation.

4. How to order GroundSure MapInsight

GroundSure has utilised our award winning website to supply the GroundSure MapInsight along with its complementary reports (the GroundSure GeoInsight and GroundSure EnviroInsight). Ordering could not be simpler.

To register for the online ordering system, please go to www.historicalmappacks.co.uk and click on register and fill in the required fields.

Alternatively, please email your contact details, including your name, company name, address, telephone number and email address to maps&data@groundsure.com and a GroundSure representative will contact you with your account details and a username and password of your choice.

Our Online Ordering system has been developed to allow easy, convenient order placement. All reports are covered by our substantial professional indemnity insurance.

A User Guide to the Online Ordering is available on our website and it will also be sent to you as part of your Registration and Getting Started email. However, if you have any questions or wish to discuss the ordering process in any way please contact GroundSure on our Technical Help Desk on 01273 819500.

5. Paying for GroundSure MapInsight

Account arrangements can be set up for customers as part of the registration process as outlined above, or the GroundSure MapInsight can be ordered and paid for by cheque on an ad hoc basis. GroundSure will invoice all customers by sending you a single itemised monthly invoice listing all the services you have ordered during that period. GroundSure's unique referencing system ensures a clear audit trail for every report purchased.

6. Delivery Formats

The GroundSure MapInsight can be supplied in electronic or paper format:

- PDF Format - The benefits of pdf format allow the user to zoom in and out of the map, without the need to enlarge the paper copy map using a photo copier, hence potentially changing the scale of the map
- Colour Hard Copy – The traditional map format, A3 loose-leaf copies are perfect for client presentations and group working.

GroundSure MapInsight User Guide

Electronic files are made available for downloading from our data warehousing facility www.groundsuredownloads.co.uk. A username and password will be provided to you and an email sent confirming your order is available for downloading. Files are kept on the system for approximately 2 weeks.

Hard copies are delivered by post in a specially designed pack suitable for easy archiving.

Presentation of the GroundSure MapInsight may vary if supplied through a Value Added Reseller (VAR). However information and data integrity will not be effected by any VAR agreements.

7. DataSure Methodology & Process

7.1 Scanning

This is the process of making an electronic copy of a physical map. This is one of the most important stages because any product containing Historical Maps will only be as good as the initial scanning and the quality of the source material. Any purchaser needs to consider this when comparing like for like products.

GroundSure's historical maps have been scanned at 508dpi for all paper archives. The human eye can only read a max of 400dpi which is considered by the British Library as 'Archive Quality', so GroundSure Historical Maps are unrivalled in the marketplace for clarity.

Where there is a choice we have taken the best quality maps to create our GroundSure MapInsight product.

Whatever the source, we scan all material to over 400dpi (508dpi for all paper maps), and store them as uncompressed Tiff files. This combination results in an image that has more resolution than any printer, computer screen or even the naked eye can distinguish. This is truly a future proofed product. You will find no more information in our original source material than you will find in our product.

7.2 Map Registration

All maps are registered (geometrically aligning images to the correct grid reference) using GroundSure's specially developed in-house software. We have been able to obtain accuracies previously unachievable in projects of this size.

Scale	Examples	Maximum Registration Error Recorded	General Registration Error expected
Small Scale	1:10,000 1:10,560	←20m	←10m
Large Scale	1:1,250 1:2,500	←10m	←3m

Error is measured between a feature on current Ordnance Survey (OS) Mapping and the same feature on the historical map. The figures displayed above are accurate at the time of the GroundSure MapInsight launch, however efforts are continuing to reduce these figures, additional refinement is reducing the general registration error and our stringent process of quality control is identifying those maps with higher than average errors and manually processing them to reduce the maximum values.

8. Coverage

8.1 Map Editions

Mapping surveys across England, Wales and Scotland have been undertaken and published by the OS at intervals since around 1840, although surveys in rural areas have been conducted less frequently than in urban areas.

The term 'map edition' refers to the general date at which a particular survey took place, as exact dates for the same map edition can vary from area to area. Some map epochs may relate to several map surveys, however generally the categories used by GroundSure relate to the time periods presented in the table below.

Table 1

County	County series 1st edition epoch date	County series 2nd edition (or 1st rev) epoch date	County series 3rd (or 2nd rev) edition epoch date	County series 4th (or 3rd rev) edition epoch date	National Grid Survey 1 epoch Date	National Grid Survey 2 epoch Date	National Grid Survey 3 epoch Date
ABD	1864 - 1871	1899 - 1903	1923 - 1929		1963 - 1982		
AGL	1886 - 1887	1899	1913 - 1923		1969 - 1975		
ARG	1862 - 1877	1897 - 1898	1914 - 1915		1960 - 1962	1964 - 1969	1973 - 1982
AYR	1854 - 1859	1894 - 1896	1907 - 1909	1937 - 1938	1958 - 1982		
BNF	1865 - 1870	1900 - 1901	1928 - 1929		1963 - 1982		
BDF	1876 - 1882	1898 - 1900	1921 - 1924	1937 - 1939	1968 - 1980		
BRK	1866 - 1883	1897 - 1899	1909 - 1912	1919 - 1942	1964 - 1982		
BUC	1874 - 1888	1902 - 1904	1913 - 1927		1962 - 1982		
BUT	1855 - 1864	1895 - 1896	1914 - 1915		1964 - 1981		
CAI	1870 - 1877	1904 - 1907			1964 - 1976		
CAM	1876 - 1886	1896 - 1901	1924 - 1926	1937 - 1950	1968 - 1982		
CRD	1885 - 1888	1900 - 1904	1937 - 1938		1964 - 1965	1972 - 1982	
CRM	1875 - 1887	1903 - 1906	1913 - 1937		1959 - 1982		
CRN	1873 - 1888	1898 - 1900	1910 - 1914	1937 - 1939	1959 - 1982		
CHE	1870 - 1875	1896 - 1898	1904 - 1909	1924 - 1937	1953 - 1980		
PER	1859 - 1863	1899	1920	1931	1960 - 1963	1977 - 1978	
CNW	1859 - 1888	1884 - 1907	1912 - 1936		1950 - 1955	1962 - 1981	
CMB	1859 - 1865	1897 - 1900	1922 - 1924	1937 - 1938	1960 - 1982		
DEN	1870 - 1875	1897 - 1899	1909 - 1912	1937 - 1939	1959 - 1980		
DRB	1875 - 1882	1896 - 1900	1912 - 1921	1937 - 1938	1956 - 1982		
DEV	1854 - 1889	1892 - 1905	1912	1932 - 1939	1948 - 1980		
DOR	1860 - 1888	1900 - 1901	1923 - 1933	1934 - 1938	1944 - 1945	1953 - 1982	
DMF	1854 - 1858	1898 - 1899	1916 - 1930		1958 - 1982		
DNB	1858 - 1861	1894 - 1898	1914	1936 - 1938	1958 - 1978		
DUR	1854 - 1857	1894 - 1897	1912 - 1919	1937 - 1942	1957 - 1982		
ELO	1892 - 1893	1906	1932 - 1938		1958 - 1960	1964 - 1973	1980 - 1982
MLO	1892 - 1894	1905 - 1906	1912 - 1913	1931 - 1942	1950 - 1973	1978 - 1982	
MOR	1866 - 1871	1902 - 1904			1964 - 1981		
ESS	1862 - 1876	1893 - 1896	1913 - 1922	1936 - 1947	1948 - 1981		
FIF	1893 - 1895	1912 - 1913	1924 - 1925	1938 - 1943	1959 - 1979		
FLN	1869 - 1872	1897 - 1899	1909 - 1911		1958 - 1977		

County	County series 1st edition	County series 2nd edition (or	County series 3rd (or 2nd	County series 4th (or 3rd rev	National Grid Survey 1	National Grid Survey	National Grid Survey 3
--------	---------------------------	-------------------------------	---------------------------	-------------------------------	------------------------	----------------------	------------------------

GroundSure MapInsight User Guide

	epoch date	1st rev) epoch date	rev) edition epoch date	edition epoch date	epoch Date	2 epoch Date	epoch Date
ANG	1857 - 1862	1898 - 1902	1920 - 1923	1937 - 1938	1965 - 1979		
GLA	1867 - 1878	1896 - 1899	1913 - 1916	1935 - 1943	1957 - 1974		
GLO	1873 - 1884	1898 - 1902	1912 - 1922	1936 - 1939	1950 - 1955	1958 - 1981	
HAM	1856 - 1875	1894 - 1897	1906 - 1910	1922 - 1943	1945 - 1981		
INV	1866 - 1876	1899 - 1903	1929 - 1938		1966 - 1980		
HRE	1878 - 1882	1901 - 1904	1916 - 1928	1937	1967 - 1975	1982	
HRT	1865 - 1881	1895 - 1897	1912 - 1923	1934 - 1947	1961 - 1963	1968 - 1981	
HNT	1884 - 1887	1899 - 1901	1924 - 1937		1969 - 1981		
KNT	1858 - 1873	1893 - 1897	1905 - 1910	1929 - 1940	1955 - 1957	1958 - 1979	
KCD	1863 - 1865	1899 - 1902	1922 - 1923		1963 - 1982		
KCB	1893 - 1894	1907 - 1908	1931		1958 - 1959	1964 - 1982	
LAN	1856 - 1859	1892 - 1897	1908 - 1911	1933 - 1942	1956 - 1982		
LNC	1842 - 1893	1904 - 1912	1915 - 1935	1936 - 1939	1954 - 1956	1959 - 1974	1978 - 1982
LEI	1879 - 1886	1899 - 1902	1912 - 1930	1937 - 1939	1954 - 1977		
ROS	1848 - 1875	1896 - 1905			1964 - 1982		
LIN	1883 - 1888	1898 - 1906	1914 - 1932	1937 - 1940	1963 - 1982		
WLO	1854 - 1856	1894 - 1896	1913		1953 - 1965		
IOM					1956 - 1958		
MER	1873 - 1888	1873 - 1888	1899 - 1900	1913 - 1914	1971 - 1982		
MDX	1862 - 1871	1891 - 1895	1911 - 1913	1932 - 1941	1961 - 1962	1969 - 1973	
MNM	1875 - 1885	1898 - 1900	1915 - 1920	1936 - 1939	1958 - 1979	1982 - 1983	
MTG	1874 - 1887	1900 - 1901	1924		1966 - 1982		
NAI	1866 - 1899	1903 - 1904			1965 - 1967	1971 - 1979	
NFK	1879 - 1886	1900 - 1906	1912 - 1939		1964 - 1982		
NTP	1882 - 1886	1898 - 1900	1919 - 1938		1961 - 1962	1965 - 1981	
NTB	1855 - 1864	1894 - 1897	1913 - 1923	1936 - 1940	1956 - 1982		
NTT	1875 - 1885	1897 - 1899	1912 - 1919	1937 - 1940	1953 - 1955	1958 - 1977	
ORK	1877 - 1878	1900			1965 - 1978		
OXF	1872 - 1880	1897 - 1900	1910 - 1920	1932 - 1939	1962 - 1980		
PEB	1855 - 1858	1897 - 1898	1906		1964 - 1982		
PEM	1860 - 1888	1904 - 1906	1937		1964 - 1982		
RAD	1883 - 1888	1901 - 1904	1926 - 1927		1972 - 1982		
RNF	1856 - 1858	1892 - 1896	1908 - 1912	1937 - 1949	1959 - 1970	1978 - 1979	
ROX	1856 - 1859	1896 - 1859	1896 - 1898	1916 - 1919	1962 - 1982		
RUT	1883 - 1884	1899 - 1903	1928		1962	1967 - 1977	
SEL	1856 - 1859	1897	1930		1963 - 1969	1978 - 1981	
SHE	1877 - 1878	1900	1928		1966 - 1973		
SHR	1873 - 1884	1899 - 1902	1924 - 1926	1937	1956 - 1982		
SKY	1874 - 1877	1898 - 1901			1964 - 1976		
SOM	1882 - 1888	1900 - 1903	1912 - 1939		1955 - 1980		
STF	1875 - 1886	1897 - 1902	1912 - 1923	1937 - 1938	1954 - 1977		
STL	1858 - 1863	1895 - 1896	1913 - 1914	1938 - 1943	1954 - 1955	1958 - 1964	1969 - 1979
SFK	1875 - 1885	1900 - 1904	1924 - 1926		1955 - 1958		
SUR	1861 - 1871	1891 - 1896	1910 - 1913	1930 - 1944	1961 - 1978		
SSX	1869 - 1875	1895 - 1898	1907 - 1910	1925 - 1946	1954 - 1979		
SUT	1868 - 1873	1902 - 1905			1959 - 1976		

GroundSure MapInsight User Guide

County	County series 1st edition epoch date	County series 2nd edition (or 1st rev) epoch date	County series 3rd (or 2nd rev) edition epoch date	County series 4th (or 3rd rev) edition epoch date	National Grid Survey 1 epoch Date	National Grid Survey 2 epoch Date	National Grid Survey 3 epoch Date
WAR	1881 - 1884	1898 - 1900	1912 - 1926	1936 - 1939	1952 - 1975		
WML	1856 - 1860	1896 - 1898	1910 - 1913	1938	1967 - 1981		
WIG	1892 - 1895	1906 - 1907			1965 - 1966	1969 - 1981	
WLT	1873 - 1885	1898 - 1900	1921 - 1924	1936 - 1943	1954 - 1957	1964 - 1982	
WOR	1881 - 1884	1898 - 1900	1913 - 1926	1937 - 1938	1959 - 1961	1964 - 1975	
YOR	1844 - 1853	1887 - 1893	1901 - 1914	1913 - 1938	1951 - 1982		

9. Information on the Maps

9.1 Date Information

Our policy of providing the client with all possible information results on more than one date being displayed per map. You should consider the list of possible dates and their descriptions below to assess which dates are relevant to you. Please note, due to GroundSure's product generating software we stitch maps of a similar date and scale together, this makes analysis easier. For easy identification of the exact date for any feature on the map a coverage date diagram is shown in the bottom right hand corner.

9.1.1 Survey / Surveyed Date

Prior to 1887 this is the date the Divisional Officer signs off the map plan as 'fit for publication'. After this date it refers to the year of the final examination of the maps prior to publications.

9.1.2 Revision / Revised Date

This is the same as a Survey Date except the map is an amendment to an existing map rather than a newly surveyed map. A revision will have the same scale as the original. Changes will be made if a feature has changed or a major inaccuracy has been identified, minor inaccuracies are often not noticed or corrected.

9.1.3 Levelling / Levelled Date

Levelling is the process of identifying the altitudes of topographical features. This is referred to as bench marks. The process was repeated several times since 1843 with improvements in accuracy each time. Present day maps use GPS, a much more reliable and accurate system.

9.1.4 Copyright Date (if present)

Copyright relates to the year in which the map was published. Copyright runs for 50 years from the end of the year in which the map was published. All maps within those 50 years fall under Crown Copyright and operate under current legislation, i.e. the Copyright, Designs and Patents Act, 1988. All maps outside of the 50 year period fall under GroundSure copyright.

GroundSure MapInsight User Guide

9.1.5 Edition Date

The use of the word 'Edition' in the map title can represent a reprinting of the map or a reprinting with revision of some of the detail. However, the Edition Date can be considered the same as 'Revision Date'.

9.1.6 Addition dates (if present)

Same as Revision Date.

9.2 Legend Information

Different epochs and scales of mapping may display similar symbols that refer to different features, however, a knowledge of every permutation of mapping is not necessary. Each map pack contains a legend extracted from the original source maps showing information relevant to the scale and year of mapping displayed.

9.3 Gridlines

After 1950 (exact date change depends on the region) the Ordnance Survey switched from a Cassini projection system to one using the British National Grid system. Only the original images from the British National Grid shows grid lines, however GroundSure projects its own grid system complete with eastings and northings in the borders of all maps. On the post 1950 National Grid Maps there may be two grid lines, one supplied by GroundSure with eastings and northings in the border and another without labels from the original image. Any difference in location of these two lines is a visible representation of the positional accuracy of the image.

10. Map Accuracy

Accuracy can be measured in several ways

10.1 Absolute accuracy

This is the position of a feature in relation to its true accuracy on the Earth's surface. As a generalisation accuracy gets worse as you go back in time. This problem was only realised in its full extent with the introduction of GPS and has resulted in a major industry forming to correct and mitigate these inaccuracies.

Registration of mapping (see section above) changes the absolute accuracy. Prior to registration the accuracy would be measured against the grid reference as worked out by the longitude / latitude lines or the British National Grid displayed over the map image. Once registered, the accuracy is measured against the GIS's coordinate system. This changes the value and depending on the quality of the original map can actually improve it.

Absolute accuracy is the figure GroundSure uses for its accuracy figures.

10.2 Relative accuracy

GroundSure MapInsight User Guide

Traditional cartography techniques of triangulation resulted in clustered features (hills, buildings etc) being relatively accurate in relation to each other compared to features in sparse areas, i.e. towns were accurate but between them in areas with low feature density inaccuracies increased.

10.3 Currency

How up-to-date the mapping is in relation to present time is only important for current mapping, historical maps are a snapshot in time.

10.4 Selection

This is the amount of information / detail shown on a map, usually dictated by the scale. At different scales, different features will be omitted to make the map useable and uncluttered.

10.5 Generalisation

Similar to selection, different scales of mapping display features in different forms to simplify the image. The classic example is the use of symbols to identify an area full of one feature type. Another example is the grouping of adjacent buildings into one feature, especially noticeable on small scale mapping.

The major generalisation is line width, on any map the thickness of a line is determined by cartographic factors such as the thinnest drawing implement used and the visibility of line. This often results in lines thicker than the feature being drawn. The table below gives some examples
For a standard thin line on a map of 0.75mm,

Scale	Viewing ratio	Thickness on the ground
1:10,000	1:1	75 cm
1:2,500	1:1	19 cm
1:1,250	2:1	5 cm

11. Limitation of Use

All mapping provided within the GroundSure MapInsight is subject to copyright. Those maps with a copyright date falling within the last 50 years are under Crown Copyright and have all rights reserved. The copyright date relates to the last month of the year printed on the map. Should you wish to re-use the in-copyright information provided, you may wish to contact the Ordnance Survey to obtain a Business Use Copyright Licence or as dictated by the Ordnance Survey.

All historical maps provided within the GroundSure MapInsight that were produced earlier than 50 years ago are subject to GroundSure copyright. This copyright places the following restrictions on the use of the historical maps:

- No maps provided within the GroundSure MapInsight shall be passed on to third parties
- All maps must not be reproduced unless permission is obtained by GroundSure first.

12. Our Terms and Conditions

GroundSure MapInsight is covered by substantial Professional Indemnity Cover and is governed by our terms and conditions. The terms and conditions can be seen in Appendix I, on the GroundSure website (www.groundsure.com) or provided by post on request.

GroundSure MapInsight User Guide

Please note: these are the standard terms and conditions provided by GroundSure for reports sold directly to clients. Resellers may have different terms and conditions and you may wish to contact the reseller directly to obtain a copy of their terms and conditions.

13. Advice and Guidance

We provide a FREE Technical Helpline so you or your clients may clarify any matter in a GroundSure product. The Technical Helpline is manned by the same experts who produce the GroundSure MapInsight. You can contact the Helpline on 01273 819 700, by email maps&data@groundsure.com, or through our website www.historicalmappacks.co.uk.

When contacting GroundSure, please quote the reference number found on the front of any GroundSure product. This will ensure we give advice relevant to your requirements.

If we have to clarify any matter which you wish to rely on, GroundSure strongly suggests that you should ask for the Helpline advice to be put into writing.

14. Future Improvements

GroundSure aims to constantly improve its services, both in terms of the products supplied, the data sets used and the continual professional development of all our staff. We consistently invest in compiling, updating and maintaining our numerous in-house databases and mapping archives as well as requiring our suppliers to provide the most robust data available. GroundSure welcomes any suggestions or comments from our customers. Our products are built on the information our clients feed back to us. Please contact us if there is particular information you would like to see included in our reports.

Glossary of Terms

British Geological Survey (BGS) – The BGS is the world's longest established national geological survey and the UK's centre for earth science and information and expertise.

Environment Agency – The Environment Agency is the government body responsible for the protection of the environment including rivers, flooding, and pollution in England and Wales.

Map Epoch – The time period during which a map survey was carried out.

BNG - The British national grid reference system is a system of geographic grid references commonly used in Great Britain, in 1945 it superseded the Cassini projection system that used latitude and longitude coordinates.

Ordnance Survey - The Ordnance Survey (OS) is the United Kingdom's national mapping agency, and one of the world's largest producers of maps. In addition to producing a wide range of maps of Great Britain, the organisation is also working in over sixty countries world-wide.

Town Plan – The town plans are a series of urban for towns of over 4000 people at 1:528 and 1:1056 scales. They are a colourful set of maps. Few towns were mapped more than once at these scales.

County Series – term applies to Ordnance Survey 1:10,560, 1:2500, 1:1056 and 1:528 scale maps. These maps were produced on county or local sheet lines. Although 'County Series' was not an official Ordnance Survey term, it is widely accepted in the field.

Appendix 1- GroundSure Limited Standard Terms and conditions

1 Definitions

In these conditions unless the context otherwise requires:

“Beneficiary” means the Customer or the client of the Customer for whom the Customer has procured the Services.

“Consultancy Services” mean consultancy services provided by GroundSure including, without limitation, carrying out interpretation of third party and in-house environmental data, provision of environmental consultancy advice, undertaking environmental audits and assessments, site investigation, site monitoring and related items.

“Content” means any data, database or other information contained in a Report or Mapping which is provided to GroundSure by a Data Provider.

“Contract” means the contract between GroundSure and the Customer for the performance of the Services which shall incorporate these conditions, the relevant GroundSure user guide, proposal by GroundSure and the content of any subsequent report, and any agreed amendments in accordance with condition 12.

“Customer” means the party that submits an Order or commissions GroundSure further to a written proposal for environmental consultancy services.

“Data Provider” means any third party providing Content to GroundSure.

“Data Report” means reports comprising factual data with no professional interpretation in respect of the level of likely risk and/or liability available from GroundSure.

“GroundSure” means GroundSure Limited, a company registered in England and Wales under number 03421028 and whose registered office is at Greater London House, Hampstead Road, London NW1 7EJ.

“Intellectual Property” means any patent, copyright, registered design rights, service marks, moral rights, data protection rights, know-how, trade mark or other intellectual property rights.

“Mapping” an historical map or a combination of historical maps of various ages, time periods and scales available from GroundSure;

“Order” means an order form submitted by or for the Beneficiary requiring Services from GroundSure in respect of a specified site.

“Report” means a Risk Screening or Data Report for commercial or residential property available from GroundSure relating to a site identified in the Order prepared in accordance with the specifications set out in the relevant user guide.

“Risk Screening” means one of GroundSure’s risk screening reports such as GroundSure Homebuyers; GroundSure Home Environmental GroundSure SiteGuard, GroundSure Screening, GroundSure Review, GroundSure Developer Review, or any other risk screening report available from GroundSure.

“Services” means the provision of any Report, Mapping and Consultancy Services which GroundSure has agreed to carry out for the Customer/Beneficiary on these terms and conditions in respect of a site detailed in the Order.

2 Scope of Services

2.1 GroundSure agrees to carry out the Services in accordance with the Contract and to the extent set out therein.

2.2 GroundSure shall exercise all reasonable skill, care and diligence in the performance of the Services.

2.3 The Customer acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in the Contract.

2.4 Terms and conditions appearing on a Customer’s order form, printed stationery or other communication, including invoices, to GroundSure, its employees, servants, agents or other representatives shall be of no effect and these terms and conditions shall prevail over all others.

2.5 In the event that a Customer/Beneficiary opts to take out insurance in conjunction with or as a result of the Services, such insurance shall be subject solely to the terms of any policy issued to it in that respect and GroundSure will have no liability therefore.

3 The Customer’s obligations

3.1 The Customer shall be solely responsible for ensuring that the Report/Mapping ordered is appropriate and suitable for the Beneficiary’s needs.

3.2 The Customer shall (or shall procure that the Beneficiary shall) supply to GroundSure as soon as practicable and without charge all information necessary and accurate relevant data including any specific and/or unusual environmental information relating to the site known to the Customer/Beneficiary which may pertain to the Services and shall give such assistance as

GroundSure MapInsight User Guide

GroundSure shall reasonably require in the performance of the Services (including, without limitation, access to a site, facilities and equipment as agreed in the Contract).

3.3 Where Customer/Beneficiary approval or decision is required, such approval or decision shall be given or procured in reasonable time as not to delay or disrupt the performance of any other part of the Services.

3.4 The Customer shall not and shall procure that the Beneficiary shall not, save as expressly permitted by these terms and conditions, re-sell, alter, add to, amend or use out of context the content of any Report, Mapping, or in respect of any service or information given by GroundSure. For the avoidance of doubt, the Customer and Beneficiary may make the Report, Mapping or GroundSure's findings available to a third party, but such third party cannot rely on the same unless expressly permitted under condition 4.

3.5 The Customer is responsible for maintaining the confidentiality of its user name and password if using GroundSure's internet ordering service and accepts responsibility for all activity that occurs under such account and password.

4 Reliance

4.1 Upon full payment of all relevant fees and subject to the provisions of these terms and conditions, the Customer and Beneficiary are granted an irrevocable royalty-free licence to use the information contained in the Report, Mapping or in a report prepared by GroundSure in respect of or arising out of the Consultancy Services. The Services may only be used for the benefit of the Customer and those persons listed in conditions 4.2 and 4.3.

4.2 In relation to Data Reports, Mapping and Risk Screening, reliance shall be limited to the Customer, Beneficiary and subsequent first purchaser or first tenant of the site including the professional advisers and lenders of each. For the avoidance of doubt, such persons shall include any entity necessary under the Housing Act 2004 or as legally required because of the Home Information Pack.

4.3 In relation to Consultancy Services, reliance shall be limited to the Customer, Beneficiary and named parties on the GroundSure proposal and subsequent report.

4.4 No party referred to in conditions 4.2 and 4.3 shall assign any rights or obligations under these terms and conditions without the prior written consent of GroundSure. GroundSure reserves the right to charge an assignment fee which will be no higher than 15% of the original fee or £250 whichever is the highest. GroundSure may assign its rights and obligations under these terms.

4.5 Save as set out in conditions 4.2 and 4.3, unless otherwise agreed in writing with GroundSure, any other party considering the information within a Report, Mapping or proposal and subsequent report in respect of Consultancy Services, including insurance underwriters, does so at their own risk and GroundSure has no legal obligations to such party unless otherwise agreed in writing.

4.6 The Customer shall not and shall procure that any person (including the Beneficiary) who is provided with a copy of any Report shall not: (a) remove, suppress or modify any trade mark, copyright or other proprietary marking from the Report or Mapping; (b) create any product which is derived directly or indirectly from the data contained in the Report or Mapping; (c) combine the Report or Mapping with, or incorporate the Report or Mapping into any other information data or service; or (d) re-format or otherwise change (whether by modification, addition or enhancement) data or images contained in the Report or Mapping save to the extent that the Customer is adding its assessment to the Report or Mapping solely for the purposes of providing its services to the Beneficiary.

4.7 Without prejudice to any other right or remedy available to GroundSure including without limitation any claim for infringement of copyright, breach of confidence or contract or otherwise howsoever arising if the Customer or a person to whom a Report or Mapping is provided, breaches any of the provisions of this condition 4, the Customer shall fully and effectually indemnify GroundSure and hold it harmless against any claim by any third party who may claim to have sustained injury loss or damage by reason of their reliance upon any report or document which GroundSure may have prepared for the Customer or upon the contents thereof.

5 Fees and Disbursements

5.1 GroundSure shall charge the Customer fees at the rate and frequency specified in the Contract together with all proper disbursements made in performing the Services. The Customer shall in addition pay all value added tax or other tax payable on such fees and disbursements in the country concerned in relation to the provision of the Services.

5.2 Unless GroundSure requires prepayment, the Customer shall promptly pay all fees disbursements and other monies due to GroundSure in full without deduction, counterclaim or set off together with such Value Added Tax or equivalent local tax as may be required within 30 days from the date of GroundSure's invoice. GroundSure reserves the right to charge interest which shall accrue on a daily basis from the date of invoice until the date of payment (whether before or after judgment) at the rate of two per cent per month.

5.3 In the event that the Customer disputes the amount payable in respect of GroundSure's invoice it shall notify GroundSure no later than 28 days after the date thereof that it is in dispute. In default of such notification the Customer shall be deemed to have agreed the amount thereof which shall thereupon be due and payable. As soon as reasonably practicable following receipt of any disputed invoice, a member of the management team at GroundSure shall contact the Customer and the parties shall use all reasonable endeavours to resolve the dispute.

6 Intellectual Property

GroundSure MapInsight User Guide

6.1 Unless expressly agreed in writing to the contrary GroundSure and its Data Providers (where relevant) retain all Intellectual Property rights and proprietary rights in all information, Content and data reproduced in a Report or as part of the Consultancy Services.

6.2 Data Providers may enforce any breach of condition 6.1 against the Customer or Beneficiary.

7 Liability

7.1 GroundSure shall not be liable to pay compensation to the Customer or any person to whom the Customer provides a copy of the Report, Mapping or results of the Consultancy Services in any circumstances whatsoever unless arising out of a breach on its part of the obligations set out in the Contract.

7.2 GroundSure shall not be liable if the Services are used otherwise than as provided or referred to in these conditions

7.3 Where any person is engaged whether by the Customer or by GroundSure on the Customer or Beneficiary's behalf in the performance of the Services or any part thereof GroundSure shall not be liable for acts of negligence, default or omission by such person.

7.4 GroundSure makes no representation, warranties, express or implied, as to the accuracy, reliability, completeness, validity or fitness for purpose of the Content shall not be liable for any omission, error or inaccuracy in relation thereto.

7.5 GroundSure shall not be liable for any inaccurate statement or risk rating in a Report which resulted from a reasonable interpretation of the Content.

7.6 GroundSure shall not be liable for any indirect losses, loss of profit nor consequential loss caused by the suspension or reduction of activity on the site.

7.7 Notwithstanding anything to the contrary contained elsewhere in the Contract, and irrespective of whether multiple parties make use of the same Services, the total liability of GroundSure under or in connection with the Contract, whether in contract in tort for breach of statutory duty or otherwise shall not exceed the amount of GroundSure's insurance as provided for below.

7.8 GroundSure shall maintain professional indemnity insurance in respect of its liabilities in respect of the Services (provided it is available at reasonable commercial rates) giving cover of not less than £5 million in the aggregate which amount shall first include the whole of any sum payable for death or personal injury. GroundSure shall produce evidence of such insurance if requested by the Customer. A greater level of cover may be available upon request and agreement with the Customer.

7.9 The Customer shall be liable to indemnify GroundSure where any loss arises as a result of any breach on the part of the Customer of its obligations under these terms and conditions.

7.10 GroundSure's liability under the Contract shall cease upon the expiry of six years from the date when the Customer/Beneficiary became aware that it may have a claim against GroundSure in respect of the Services provided always that there shall be no liability at the expiration of twelve years from the completion of the Contract.

7.11 Whilst GroundSure will use all reasonable endeavours to maintain operability of its internet ordering service it will not be liable for any loss or damages caused by a delay or loss of use of such service. The Customer shall use GroundSure's internet ordering service at its own risk. GroundSure shall not be responsible for any damage to a Customer or permitted assignee's computer, software, modem, telephone or other property resulting from the use of GroundSure's internet ordering service.

7.12 The Customer accepts, and shall procure that anyone who is provided with a copy of the Report accepts, that it has no claim or recourse to any Data Provider or to GroundSure in respect of the acts or omissions of such Data Providers including Content supplied by them.

7.13 Nothing in these terms and conditions shall limit GroundSure's liability for causing death or personal injury through negligence or wilful default.

7.14 GroundSure accepts no liability for use of any residential Reports or any data or information contained therein for development or other commercial property purposes in respect of which a commercial Report should have been obtained.

8 Remediation

8.1 For the purpose of this condition 8, 'Claimant' shall mean one of: (a) the Beneficiary, (b) the purchaser of the site from the Beneficiary or (c) the funder of (a) or (b) as applicable.

8.2 This condition 8 shall apply solely to GroundSure Homebuyers and GroundSure Home Environmental with passed rather than failed status.

8.3 GroundSure may, at its sole discretion without any admission of liability, make a contribution to the Claimant towards the costs of any clean up works required to be carried out under a notice served on a Claimant in respect of a site under Part II (A) Environmental protection Act 1990 ("Remediation Notice") on the terms of this condition 8 ("Clean up Award").

8.4 The Clean up Award:

(a) is only available once in respect of a site and to one Claimant only; (b) shall only apply where the site is a single residential dwelling house or a single residential flat within a block of flats. For the avoidance of doubt, a Clean up Award will not be considered in respect of commercial property or to any site being developed or redeveloped whether for residential purposes or otherwise; and (c) shall only apply to contamination or a pollution occurring as at or prior to the date of GroundSure Homebuyers.

8.5 The Clean up Award will not be paid in respect of any of the following, including without limitation:

GroundSure MapInsight User Guide

(a) asbestos; (b) radioactive contamination arising directly or indirectly from or in connection with ionising radiations or contamination by radioactivity from any nuclear waste or fuel; from the combustion of nuclear fuel or the radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof; (c) naturally occurring materials or their removal except where such materials are present in excess of their natural concentration; (d) any condition caused by acts of war or an act of terrorism; (e) any condition which is known or ought reasonably to have been known to the Claimant prior to the purchase of GroundSure Homebuyers; (f) non-compliance by the Claimant or any other person with respect to the site with any statute, regulation, byelaws complaint, or notice from any regulatory authority; (g) any property belonging to or in the custody or control of the Claimant which does not form a fixed part of the site or the structure; (h) any losses incurred following a material change in use of, alteration or development of the site; or (i) financial loss in respect of loss of rental, profit, revenue, savings, business or any consequential, indirect or economic loss, damages or expenses, including the cost of temporary accommodation or business interruption.

8.6 In the event the Claimant wishes to apply for a Clean up Award, it shall notify GroundSure in writing within 3 months of the date of the Remediation Notice. The Claimant shall comply with all reasonable requirements of GroundSure with regard to the commission and conduct of the clean up works to be carried out under the Remediation Notice. In the event that the Claimant breaches this provision including, without limitation, failing to obtain GroundSure's prior written consent in respect of estimates for such works GroundSure shall not be required to pay a Clean up Award.

8.7 GroundSure shall only pay a Clean up Award where a Remediation Notice is served within 36 months of the date of GroundSure Homebuyers.

8.8 The maximum sum of any Clean up Award shall be £60,000 and shall be paid subject to the Claimant having paid to GroundSure an excess in respect of its claim of £5,000.

8.9 GroundSure reserves the right at any time to withdraw the offer of payment of a Clean up Award.

8.10 The Claimant shall take all reasonable steps to appeal such Remediation Notice and mitigate any costs incurred in connection with the remediation works required under the terms of any Remediation Notice. GroundSure reserves the right to withhold or reduce the amount of its Clean up Award in the event of a breach of this condition or an appeal is still active.

9 GroundSure right to suspend or terminate

9.1 In the event that GroundSure reasonably believes that the Customer or Beneficiary as applicable has not provided the information or assistance required to enable the proper performance of the Services, GroundSure shall be entitled on fourteen days written notice to suspend all further performance of the Services until such time as any such deficiency has been made good.

9.2 GroundSure may additionally terminate the Contract immediately on written notice in the event that:

(i) the Customer shall fail to pay any sum due to GroundSure within 28 days of the due date for payment; or (ii) the Customer (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an Administration Order made against it or if a Receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Customer is struck off the Register of Companies or dissolved; or (iii) the Customer being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Customer shall enter into a composition or arrangement with the Customer's creditors or shall suffer distress or execution to be levied on his goods; or (iv) the Customer breaches any material term of the Contract (including, but not limited to, the obligations in condition 4) incapable of remedy then and in any such case GroundSure shall be entitled to a fair and reasonable amount on account of the fees due commensurate with the services performed to the date of such termination and any outstanding expenses or other disbursements that it may have incurred in respect of the Contract including without limitation equipment hire costs for the remainder of any lease, storage costs, transportation costs, labour costs or sub-contractor fees.

10 Customer's Right to Terminate and Suspend

10.1 Subject to condition 11.2, the Customer may at any time after commencement of the Services by notice in writing to GroundSure require GroundSure to terminate or suspend immediately performance of all or any of the Services.

10.2 The Customer waives all and any right of cancellation it may have under the Consumer Protection (Distance Selling) Regulations 2000 (as amended) in respect of the Order of a Report/Mapping.

11 Consequences of Withdrawal, Termination or Suspension

11.1 Upon termination or any suspension of the Services, GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any site with all reasonable speed and shall deliver to the Customer/Beneficiary any property of the Customer/Beneficiary in GroundSure's possession or control.

11.2 The Customer shall pay to GroundSure all and any fees as are due in respect of the Services performed up to or in respect of such termination or suspension.

12 General

12.1 GroundSure and the Customer agree not to rescind or vary these terms and conditions to Ordnance Survey's or its successor's detriment without obtaining Ordnance Survey's or its successor's prior written consent.

12.2 Subject to condition 12.1, GroundSure reserves the right to amend these terms and conditions. No variation to these terms shall be valid unless signed by GroundSure or made in accordance with condition 12.1.

GroundSure MapInsight User Guide

12.3 No failure on the part of GroundSure to exercise and no delay in exercising, any right, power or provision under these terms and conditions shall operate as a waiver thereof.

12.4 Save as expressly provided in conditions 6.2 and 12.5, no person other than the Customer, Beneficiary and GroundSure shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of these terms and conditions.

12.5 The Secretary of State for Communities and Local Government acting through Ordnance Survey, may enforce breach of conditions 6.1 or 12.1 of these terms and conditions against the Customer in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.

12.6 GroundSure shall not be liable to the Customer if the provision of the Services is delayed or prevented by any circumstance which is beyond GroundSure's reasonable control including without limitation one or more of the following circumstances:

(i) the Customer or Beneficiary's failure to provide facilities, access or information; (ii) fire, storm, flood, tempest or epidemic; (iii) process shutdown; (iv) Acts of God or the public enemy; (v) riot, civil commotion or war; (vi) strikes, labour disputes or industrial action; (vii) acts or regulations of any governmental or other agency; (viii) suspension or delay of services at public registries by Data Providers; or (ix) changes in law.

12.7 Any notice provided for shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

12.8 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email and on the second working day after the day of posting if sent by first class post.

12.9 The Contract constitutes the entire contract between the parties and shall supersede all previous arrangements between the parties.

12.10 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.

12.11 These terms and conditions shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with these terms and conditions shall be subject to the exclusive jurisdiction of the English courts.

12.12 These terms and conditions were produced on 28 May 2008.