



The role of authoritative data and the challenges for national mapping and land agencies in fulfilling the needs of regional, national and global development

Dr Vanessa Lawrence CB
Director General and Chief Executive
Ordnance Survey

28th March 2014



MY MAP OR YOURS?

Making - with bars cartog

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Opinion

Ordnance Survey: Insurance industry can harness big data analytics

Sarah Adams, Ordnance Survey

Big data refers to a mass of information held digitally that is so large that it is difficult to process using traditional data processing applications.

ExpertInsight

How to map out your future - for the better

Ordnance Survey puts everything in place

INDUSTRY VIEW

The fast growing geographical services industry is adding a new dimension to the rise of big data. An Oxa report released in January estimated revenues from global Geo services were at £98bn to £177bn per year - already larger than the video game industry, and around one-third of the annual revenue generated by the airline industry.

While maps and data have been around for generations the growing buzz around new processing and analytical technologies has led to changes in the mapping world. And few adapt so well as Ordnance Survey, which has been evolving its strategy for more than 220 years.

"We were initially established to map the southern part of Britain to repel potential Napoleonic invasion," says John Kirmance, director of sales with Ordnance Survey.

"In the 21st century we've moved into a data world, where maps on a computer screen are created from the data bits behind it, and that data can now be used in a variety of ways to provide business insight.

The changes didn't mean a decline in mapping quality having kept up-to-date every house, road and landscape change across Britain. Since 2010, the use of a computerised data service has enabled even greater accuracy and accessibility

GeoConnexion

Geographic data leads the way to better healthcare

Geographic data leads the way to better healthcare - 2560 organisations signed up to PSMA

More NHS organisations than ever before are using innovative mapping technologies to help improve local health services. From reducing obesity in Birmingham to plotting hotspots of new immunisation take up in Essex, Ordnance Survey's intelligent geographic information is being used in a wide range of settings to inform healthcare decision-making.

Accessing digital maps has never been easier thanks to the Public Sector Mapping Agreement (PSMA) - a centrally funded licensing agreement between Government and Ordnance Survey which allows geographic data to be widely available, free at the point of use and shared between all public sector organisations across England and Wales.

A record 2560 public sector organisations have now registered for the PSMA, including around 1100 hospital trusts, all 12 ambulance trusts and more than two thirds of NHS authorities. With responsibility for public health due to move across to local authorities in April 2013, the available open and shared geographical data through the Public Sector community is making a real effort to collaborative working, an effective health service planning.

James Brayshaw, Ordnance Survey's Customer Director, says:

"There are many examples from around the country which provide powerful evidence that geographic information not only helps the NHS do more for less but it helps deliver real improvements to local health services. With new technologies making mapping and reference easier to use and the public sector agreement allowing information to be shared between a range of public sector agencies, we hope that more healthcare organisations will start using Ordnance Survey to underpin their services and create a real momentum for GIS in the NHS."

In the Midlands, Birmingham NHS is using Ordnance Survey geographic information to map takeaways near schools in a city-wide programme to reduce obesity rates. By overlaid on to interactive digital maps, public health officials found that 71 per cent of all primary and secondary schools in the city have a hot food take-away within 500 metres. As a result, the council has now introduced new rules to control the number of unhealthy fast food outlets near a school and within local centres. Several applications have been refused on these grounds.

Obesity is a major public health problem in Birmingham. With its complex and inter-related, social and economic issues, it is one of the largest public health challenges facing the city.

LOCATION IS EVERYTHING

Location-based information is the key to understanding the complex world we live in

Location-based information is the key to understanding the complex world we live in. It's not just about where you are, it's about what you can do with that information.

any insurance underwriters believe better access to real-time, location-based information would revolutionise the understanding of relative risk exposures - and therefore risk perception

services use UPRNs, allowing insurers to data and validate customer information. Ordnance Survey is close to finalising a five-year transformational project that will convert its databases into one spatial database-mapping platform harnessing big data. The platform will be able to collect and analyse different data for the design of new products. For example, one dataset include UPRNs will provide in

UK in lead as maps become 'vital to running a business'

By Rhianon Williams

LOCATION, location, location is the mantra of the property business. But it could also be adopted by the rapidly growing global mapping industry which is now worth £10bn.

The explosion of digital technology has transformed the business from a niche market of paper into computerised information that can play a crucial role in driving economic growth, sustainable development and resource management.

In growing importance to daily life, it is now being used in a wide range of applications, from navigation and smartphone geolocation to the mapping of the world's oceans.

The industry will be the focus of the first day of the UN-sponsored conference on what is known as the "geospatial information industry" in London.

Industry sectors, including oil, telecoms, transport, aviation and agriculture, alongside national and local government and emergency services.

It claims that it has:

- saved companies more than 1 billion hours of time to improve navigation
- helped to speed up emergency services responses and save 100 lives a year
- improved agricultural productivity as a result of better targeted irrigation to an estimated global cost saving of between £5.2bn and £14.8bn

Moving Britain's leading role in the sector, the conference was convened by Vanessa Lawrence, director general and chief executive of the 222-year-old Ordnance Survey, who said maps were now vital to the running of businesses.

"Location is now considered by many as the fourth driver of business making alongside revenue, time and cost," she said.

"Geospatial information is big business and essential to all our daily lives, and a delivering real benefits to individuals around the world."

A SMARTER APPROACH

Insurers can build a more sophisticated view of risk by embracing geographic intelligence data

By Sarah Adams

Figures from the Met Office show that 2012 was the second-wettest year on record in the UK, with some 486 000 claimants and motorists. With the discussions still in progress, it's clear that insurers will need to take a more sophisticated view of risk by embracing geographic intelligence data.

It may seem obvious, but knowing exactly how land you own or farm, and particularly where your boundaries are, is a prerequisite for effective management. In many cases the situation isn't as clear cut as people think.

At the basic level, an up-to-date digital map showing boundaries accurately and reflecting the actual positions of features on the ground is essential.

Protect your interests with up-to-date mapping

Michael McCullough has been conducting a full survey of fresh food, mineral and sporting rights on the Bowland Estate in West Lancashire for owner John Hughes (right).

It may seem obvious, but knowing exactly how land you own or farm, and particularly where your boundaries are, is a prerequisite for effective management. In many cases the situation isn't as clear cut as people think.

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THE EXTRA MILE

The use of geographic intelligence data to improve road classification

By Sarah Adams

The motor insurance industry has experienced a turbulent 12 months. It faced public scrutiny with the introduction of the second-wettest year on record, paid claims for flood and storm-damaged vehicles. Add to this the ambiguity over it is clear that to remain competitive within a challenging environment, insurers need to innovate.

Geographic intelligence is proving its worth in the property area, but could motor insurers use it to underwrite at property level instead of postcode level? For high-net-worth customers, whether a valuable vehicle is at risk from threats such as theft or vandalism, property level detail is potentially a source of competitive advantage.

Some certainly feel that the postcode level is unfair. At the recent Association of British Insurers Motor Conference, MP for Blackburn Jack Straw highlighted the plight of one of his constituents, a woman who paid an increase of £700 in premiums for moving 500 yards down the road.

Taking this one step further, for insurers using telematics, road classification intelligence can enable sophisticated analysis to assist in fraud. Combining customer location data with enhanced road classification intelligence allows insurers to quickly and accurately pinpoint the type and layout (including height and width restrictions and gradients), and view traffic calming information.

Understanding the types of roads policyholders usually drive on, and taking into account their speed and the time of day, could enhance driver scoring. For example, what effect on premiums would policyholders driving during rush hour on motorways compared with those driving town during off-peak hours?

This analysis could assess the policyholder's driving and help with post-incident analysis. In the case of a road traffic incident, understanding the speed, precise location and

time of the incident can provide supporting evidence in a claim and help tackle the growing issue of whiplash fraud. Using traffic island and restrictions could allow claims handlers to provide less adversarial and accurate mapping applications following interviews with policyholders.

Utilising and analysing data in this way reduces the time and cost of claims and, importantly, improves the customer experience.

And with the government announcing £1bn of investment in road improvements across the UK, it's time for insurers to use accurate, up-to-date intelligence to ensure accuracy of driver scoring and ultimately remain competitive.

As insurers are forced to think differently, it's time to consider how to enhance risk modelling and improve customer service to remain profitable.

Sarah Adams, financial services sector manager, Ordnance Survey

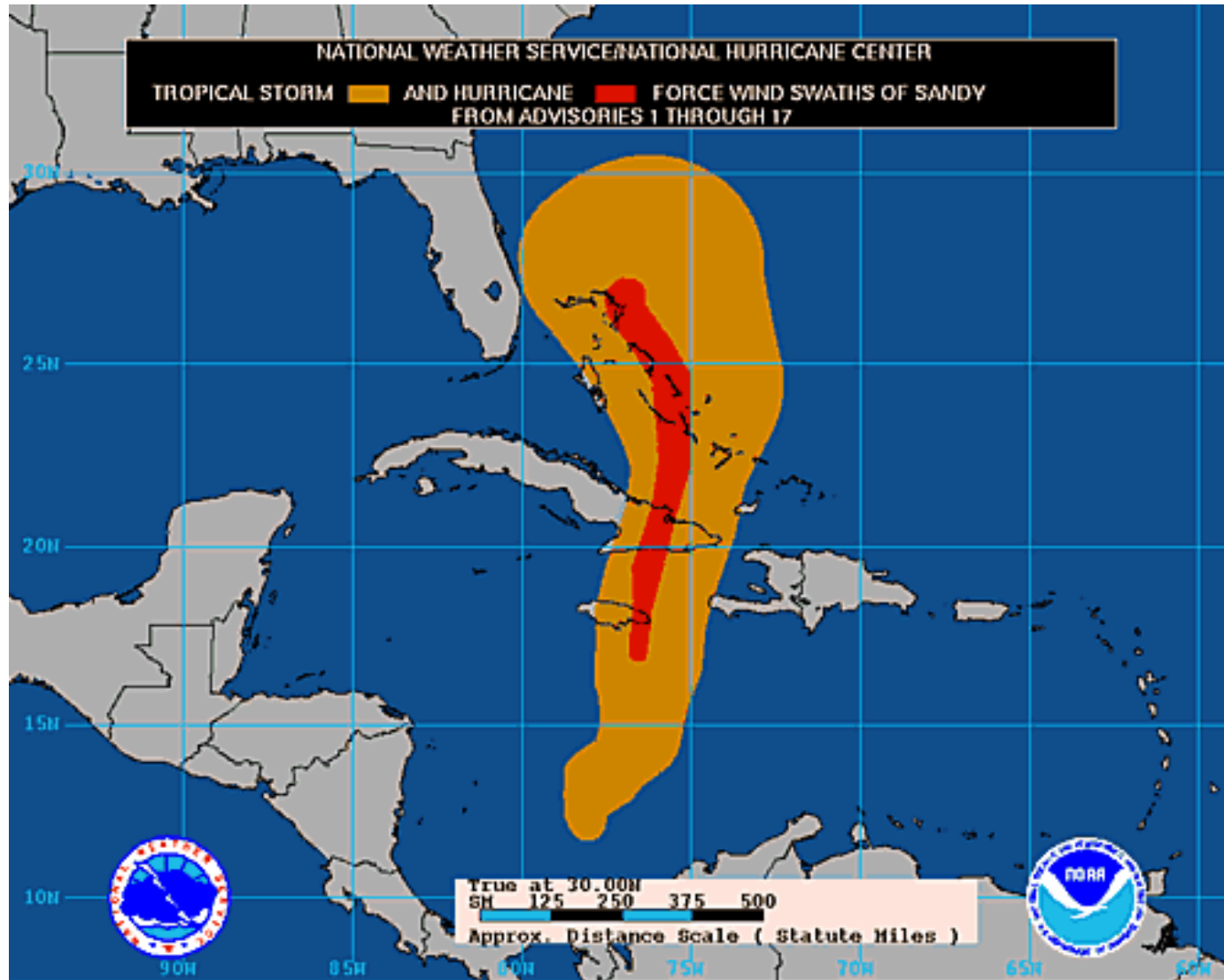
Everything happens somewhere



Everything happens somewhere



Everything happens somewhere: Hurricane Sandy





RIO+20

United Nations Conference on Sustainable Development

Accurate location information assisting better decision-making in:

- Water management
- Food management; food supply and sustainable agriculture
- Sustainable energy

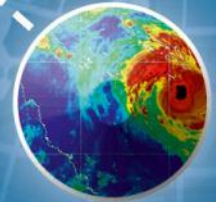
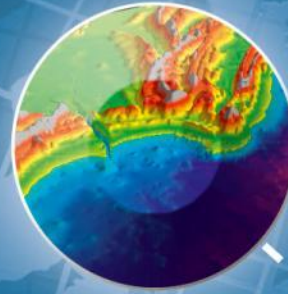
Rio+20 conference





RIO+20
United Nations Conference
on Sustainable Development

Monitoring Sustainable Development: Why Location Matters?



UN-GGIM

United Nations Initiative on
Global Geospatial Information Management
ggim.un.org

 HM Government

“The Future We Want”: 19 June 2012

187. We recognize the importance of early warning systems as part of effective disaster risk reduction at all levels in order to reduce economic and social damages including the loss of human life, and in this regard encourage States to integrate such systems into their national disaster risk reduction strategies and plans. We encourage donors and the international community to enhance international cooperation in support of disaster risk reduction in developing countries as appropriate through technical assistance, technology transfer as mutually agreed, capacity building and training programmes. We further recognize the importance of comprehensive hazard and risk assessments, and knowledge and information sharing, including reliable geospatial information. We commit to undertake and strengthen in a timely manner risk assessment and disaster risk reduction instruments.

274. We recognize the importance of space-technology-based data, in situ monitoring, and reliable geospatial information for sustainable development policy-making, programming and project operations. In this context, we note the relevance of global mapping and recognize the efforts in developing global environmental observing systems, including by the Eye on Earth network and through the Global Earth Observation System of Systems. We recognize the need to support developing countries in their efforts to collect environmental data.

The importance of geospatial information

“I am also pleased to see that the importance of reliable, trusted geographic information is now recognised. The United Nations has now established a Committee of Experts of Member States, which the UK co-chairs, to move this agenda forward”

*Rt Hon Nick Clegg MP,
Deputy Prime Minister,
United Kingdom Government,
Rio+20 June 2012*



Creating a sustainable city: Masdar City, Abu Dhabi

- ‘The First Carbon Neutral City’
- integrating the use of GIS in every aspect to plan the city
- from ensuring the construction process is efficient and produces zero waste
- to planning the transport and energy network to meet potential demand
- building in monitoring systems into the city infrastructure
- monitoring energy reduction, environmental conservation and social development



Monitoring the City: Managing daily life

- The Rio Operations Centre helps the City Authority watch and manage daily life.
- The Centre integrates information on weather forecasts, water information, traffic flows and any other anomalies in daily life of the city to predict and manage potential situations such as flooding or traffic accidents.
- By monitoring the City and communicating information to local services, including traffic officers, fire services, and flood protection officers, contingency plans can be put in place and the public put on alert to minimise impacts of potential situations.



Brazil: use of GIS improves monitoring and reduces crime in the state of Amazonas

With over 1.5 million km² and 3.5 million inhabitants, the State of Amazonas is the largest of the 27 states in Brazil and the second most populous in the Northern region.



The challenge: need for faster police response to incidents and to improve the Integrated Public Safety System (SISP).

The solution: investment of US\$ 150 million to map major cities, to implement a geographical information system (GIS) and for hardware acquisition (monitoring cameras and GPS navigator).

The benefits: 10% reduction in police incidents and 13% reduction in homicides in May 2012 in comparison with May 2011, due to the benefits of 'crime map' in the State.

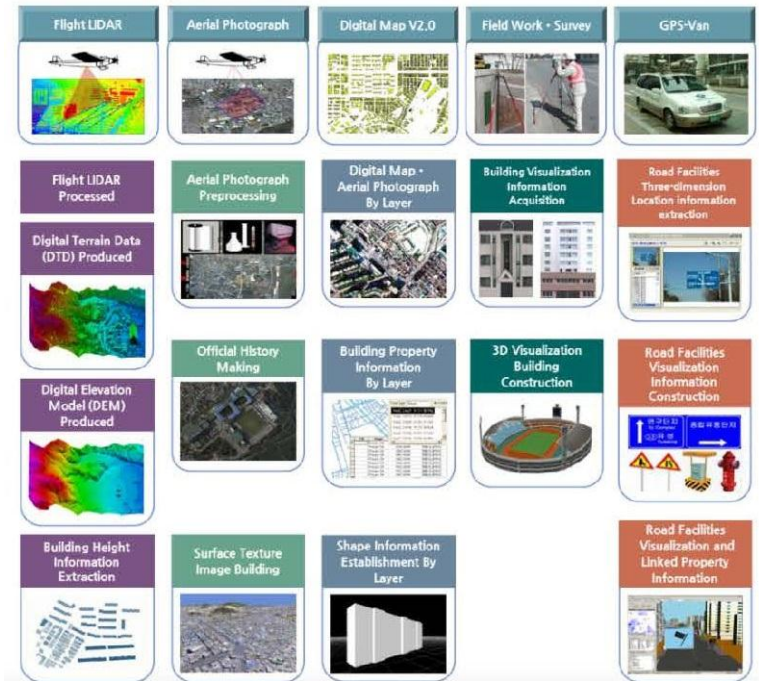
Data integration between civil and military police.



Republic of Korea: 3D geospatial information

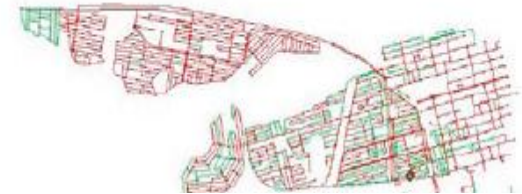
The Republic of Korea is producing the real world into a three dimensional map.

The use of 3D geospatial information allows for sustainable urban planning and developments, **risk and disaster management**, and environmental monitoring much easier.



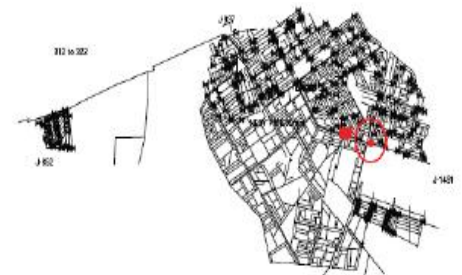
Monitoring local water use: assessing and improving water management

- The Water Plant in Ouagadougou, Burkina Faso uses a GIS-supported monitoring system to manage efficient water use through pressure control, automated valves and leak detection systems.
- By monitoring water flow and use, resources can be managed more effectively to identify areas and times of high use and potentially detect systemic problems such as leaks or illegal water-tapping.
- The more consistent water supply has reduced water theft, raised local awareness of water management and freed up money to be spent on water quality and sanitation.



Area of distribution (top)

Identification of a leak point (bottom)



Source: The UN

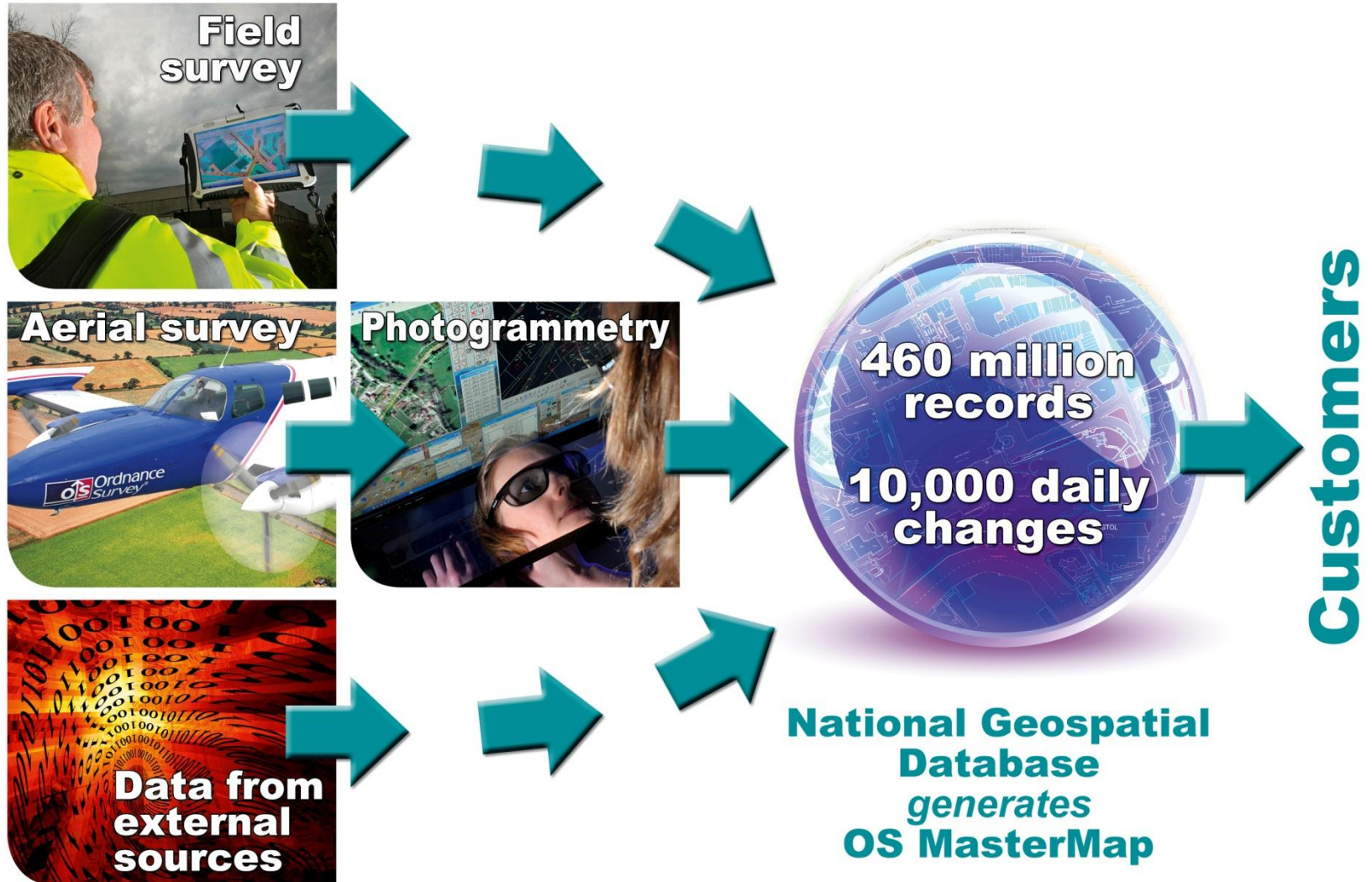


World Bank Offices, London
OS MasterMap® Topography Layer

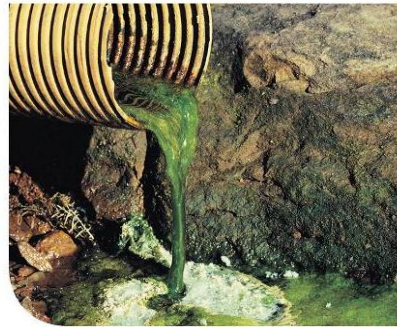


World Bank Offices, London
OS MasterMap® Imagery Layer

Updating the Ordnance Survey database



Relied upon by the public and private sector...over 3000 public organisations using geographical information to run their businesses





Davenport District Council

Optimising waste collection using OS MasterMap Integrated Transport Network Layer

- Davenport generated new waste collection routes in all seven districts using OS MasterMap Integrated Transport Layer with Route Restriction Information
- Davenport has been able to rationalise the number of domestic waste collection routes from nine to eight, reducing diesel costs by 12%, increasing spare capacity by 14% and eliminating overtime costs.



'OS MasterMap ITN Layer and Road Routing Information has made it possible for us to meet our challenges of increasing efficiency, planning for growth and reducing landfill. In Davenport alone we are on target to achieve savings of around £100 000 per year, with much greater savings expected for the whole county.'

Jo Gilford
Corporate Manager for
Public Space
Davenport District Council





Cardiff Council

CAPITA
CHILDREN'S SERVICES

one

Cardiff Council delivers more than **£1 300 000** (\$2,161,640) savings from enhanced SEN (special educational needs) route and vehicle management, and efficient contract re-negotiation

'SEN Vehicle Management is having a major impact on how we manage transport needs. It is very easy to use and its intuitive menu system means that you don't have to know the whole system in detail to be able to use it. It is very user-friendly.'

Stephen Gerrard,
Schools' Transport Team Leader,
Cardiff Council



imagestock / Albany

Utility efficiencies by linking customer records to Assets to billing

- What the asset department believes it supplies (blue)...
- Who the billing department believes they are billing (green)...
- Leaving those in red...

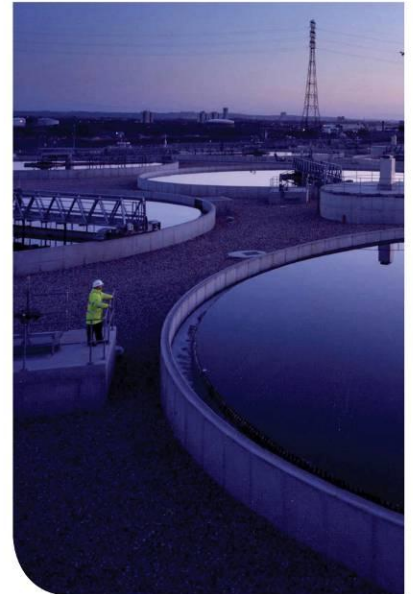


Northumbrian Water Limited – investing in GI

The return on investment is real and demonstrable and includes:

- Additional income alone of well over £1m (\$1,662,800) through improved management of empty properties.
- A sustainable cut of at least £60,000 (\$99,768) in operating costs through the call centre solve-at-source principle.
- Significant savings in time and cost in the provision of timely and accurate asset information to field technicians.

Ian Donald, Customer Services Director concludes:

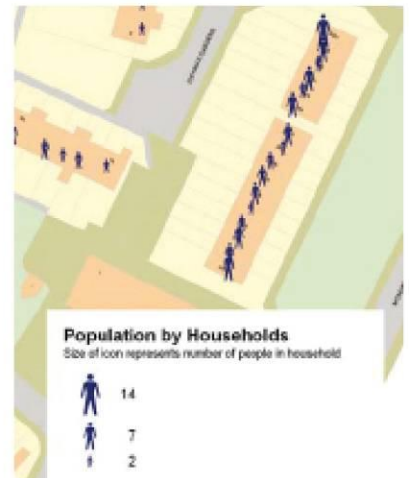


'From the customers' point of view and from the business point of view, GIS has been of great benefit and our investment has been well worth it'.

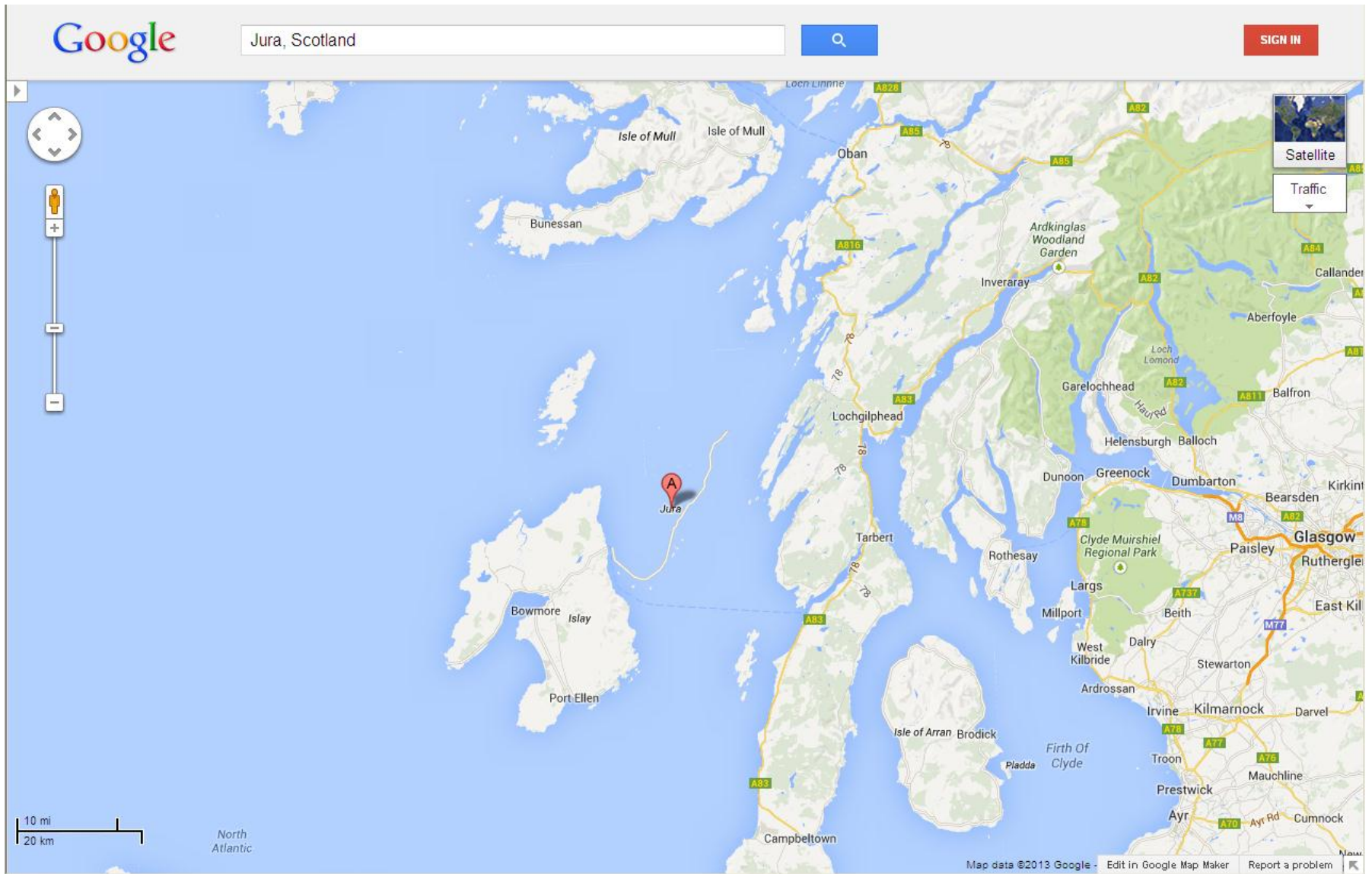
Increasing patient registrations

Birmingham Health and Well-being partnership

- **Identifying patient spread**
 - OS MasterMap Address Layer 2 is used with multiple occupancy information
 - The Trust can quickly identify addresses where there is no record of a registered patient
- **Reaching the unregistered**
 - Targeted mail shots encourage people to register with a GP
- **Maximising the benefits**
 - An increase in patient registrations in areas identified as having low registrations
 - Improved patient address list will support future health campaigns and surveys



...Because accuracy matters



“Argleton” – the town which only appears online



Key Stakeholders

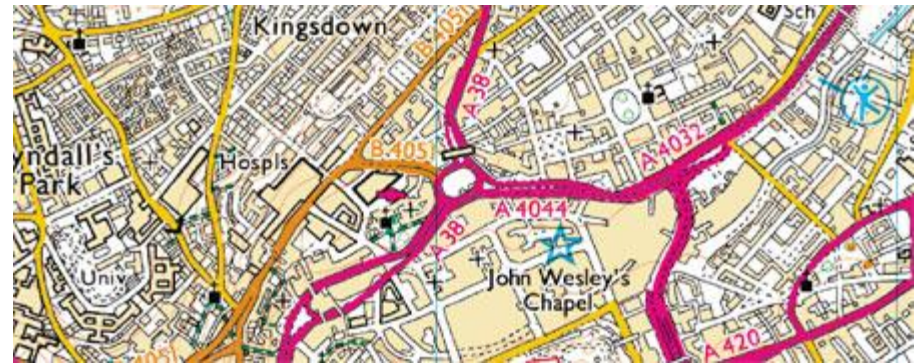


MINISTRY OF DEFENCE



Requirements: Standard products

1. Frequent revision of our large scale topographic data to include all **minor changes** to the built and natural environment.
2. Frequent revision of our **road network** data.
3. Frequent revision of our **address information**.
4. Increased publication times for smaller scale products so as to ensure greater **content synchronicity** with our large scale data.

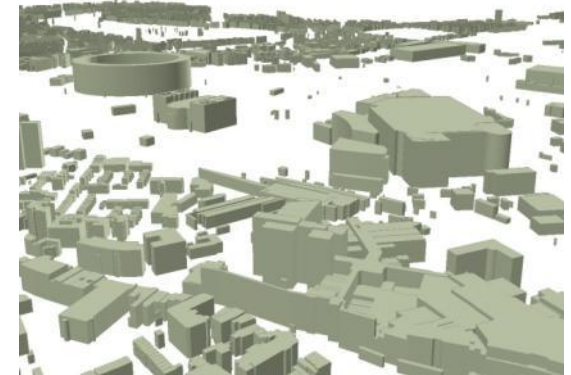


Requirements: Special Information Provision (SIPs)

1. **Street furniture** data captured within agreed areas close to key venues and sensitive sites.



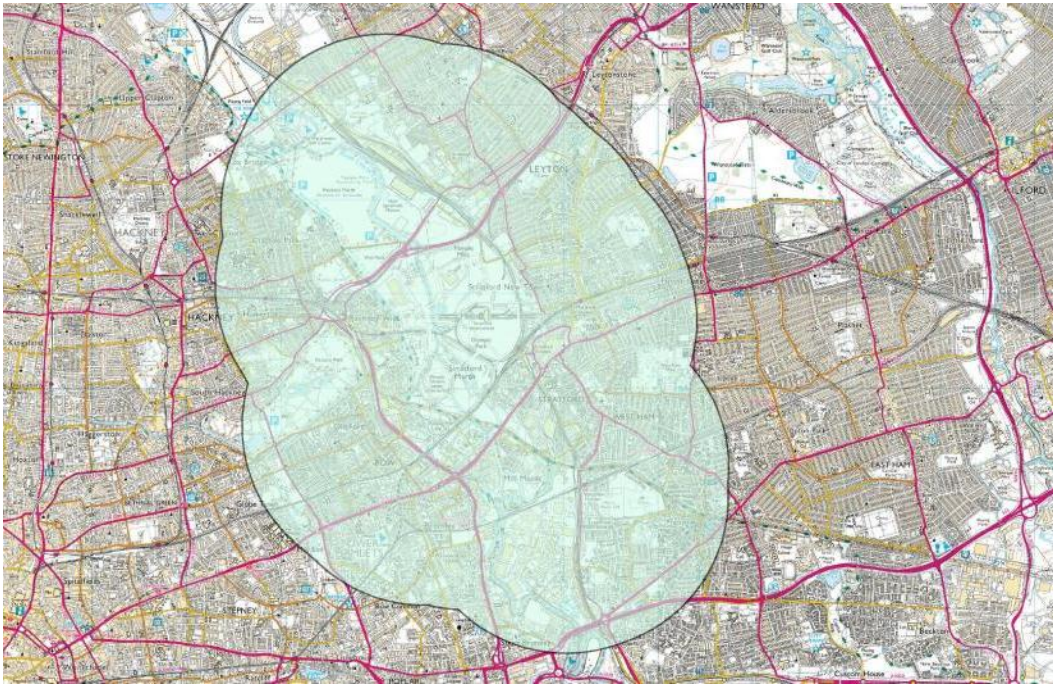
2. **High resolution** ortho-rectified colour aerial imagery (12.5cm, 10cm and 5 cm resolution) for agreed targets.



3. **Simple Building Height** information for all buildings in OS MasterMap Topo within agreed areas.

Requirements: Defining extents

- These extents were refined and modified through discussion and agreement, primarily with Metropolitan Police and MOD



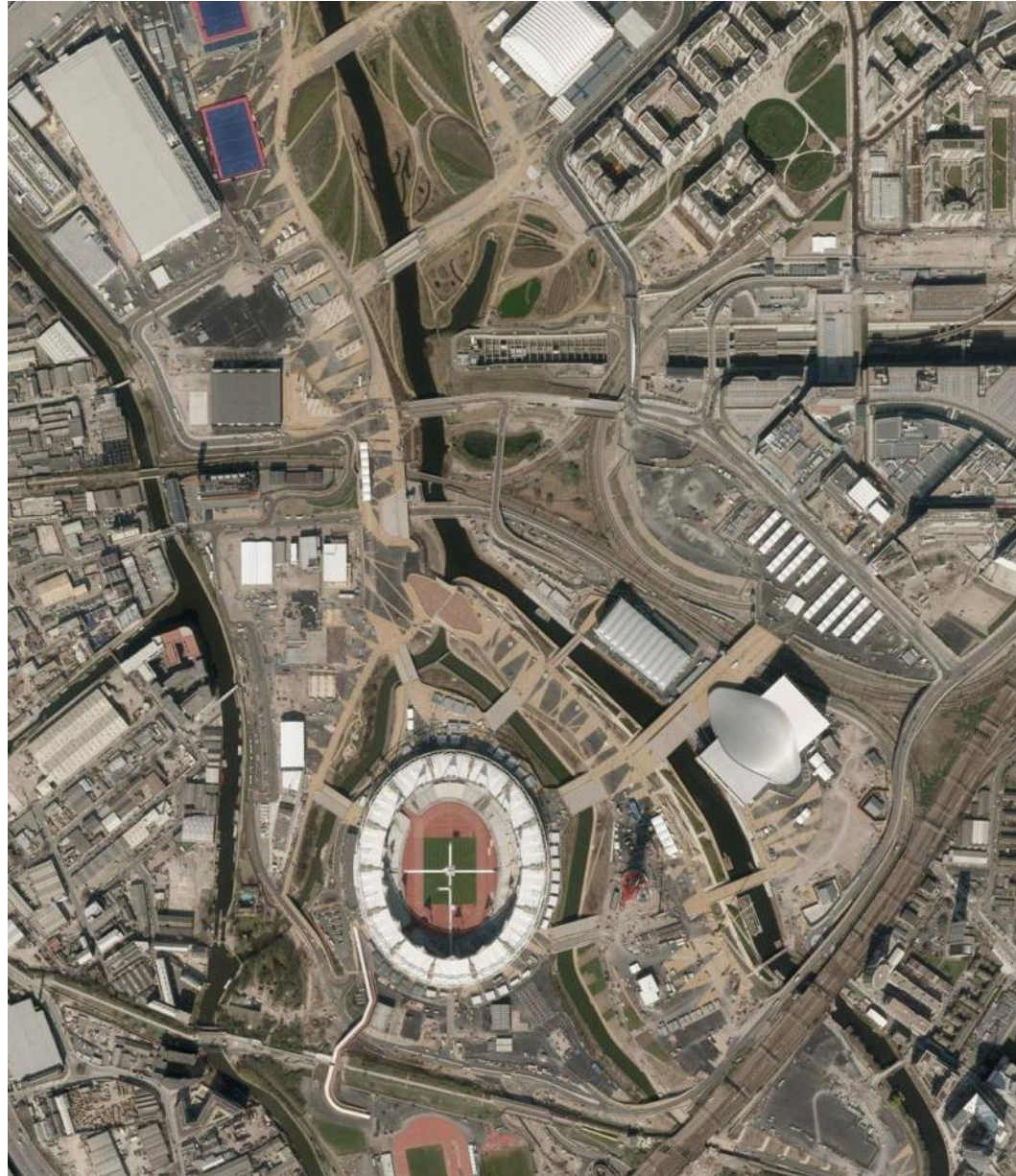
Original buffered polygons
refined and venue extents
agreed for 87 kms.

Olympic Park	24 kms
Other key venues	51 kms
Weymouth	5 kms
Football stadia	7 kms

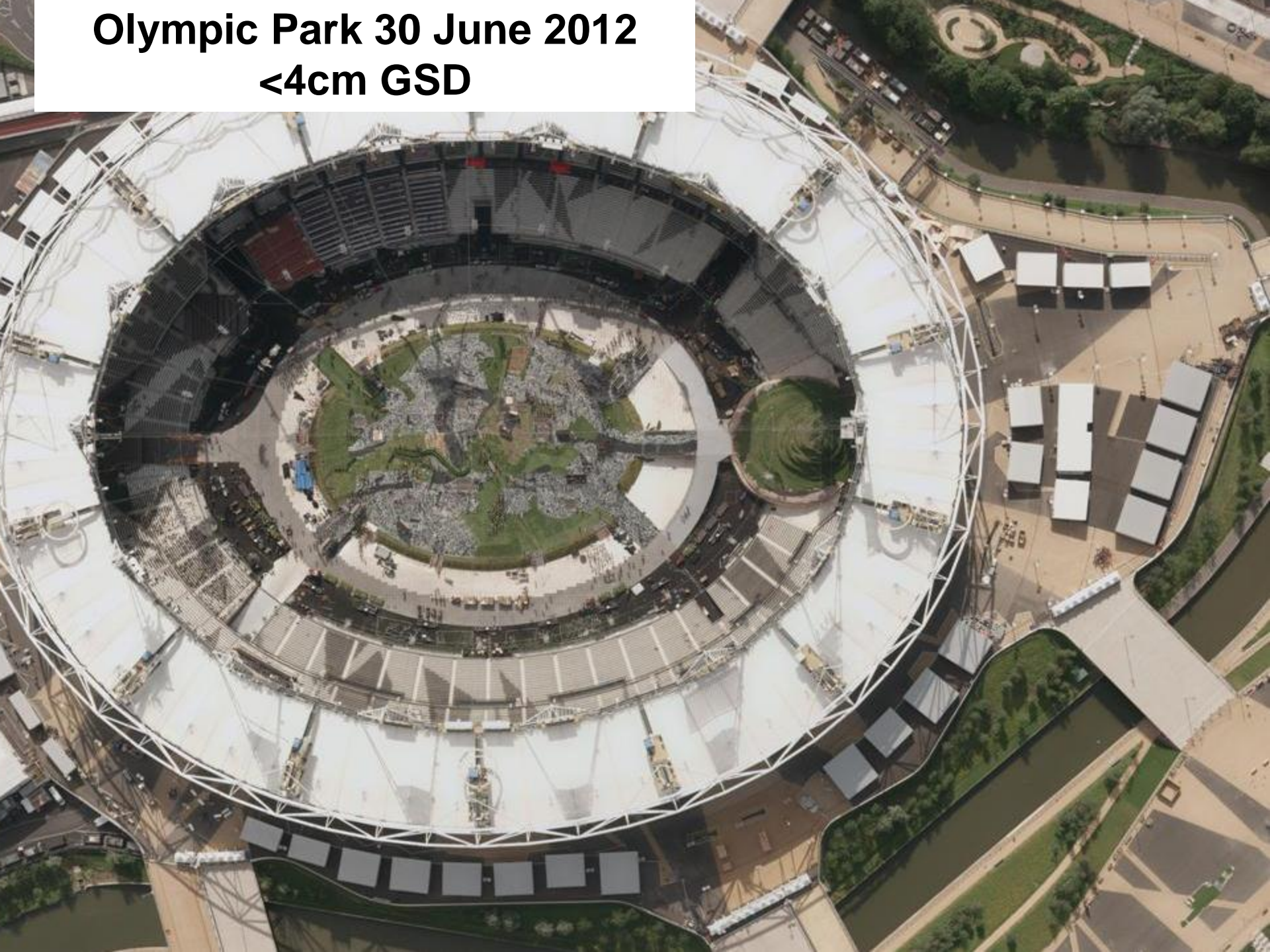
August 2001



March 2012

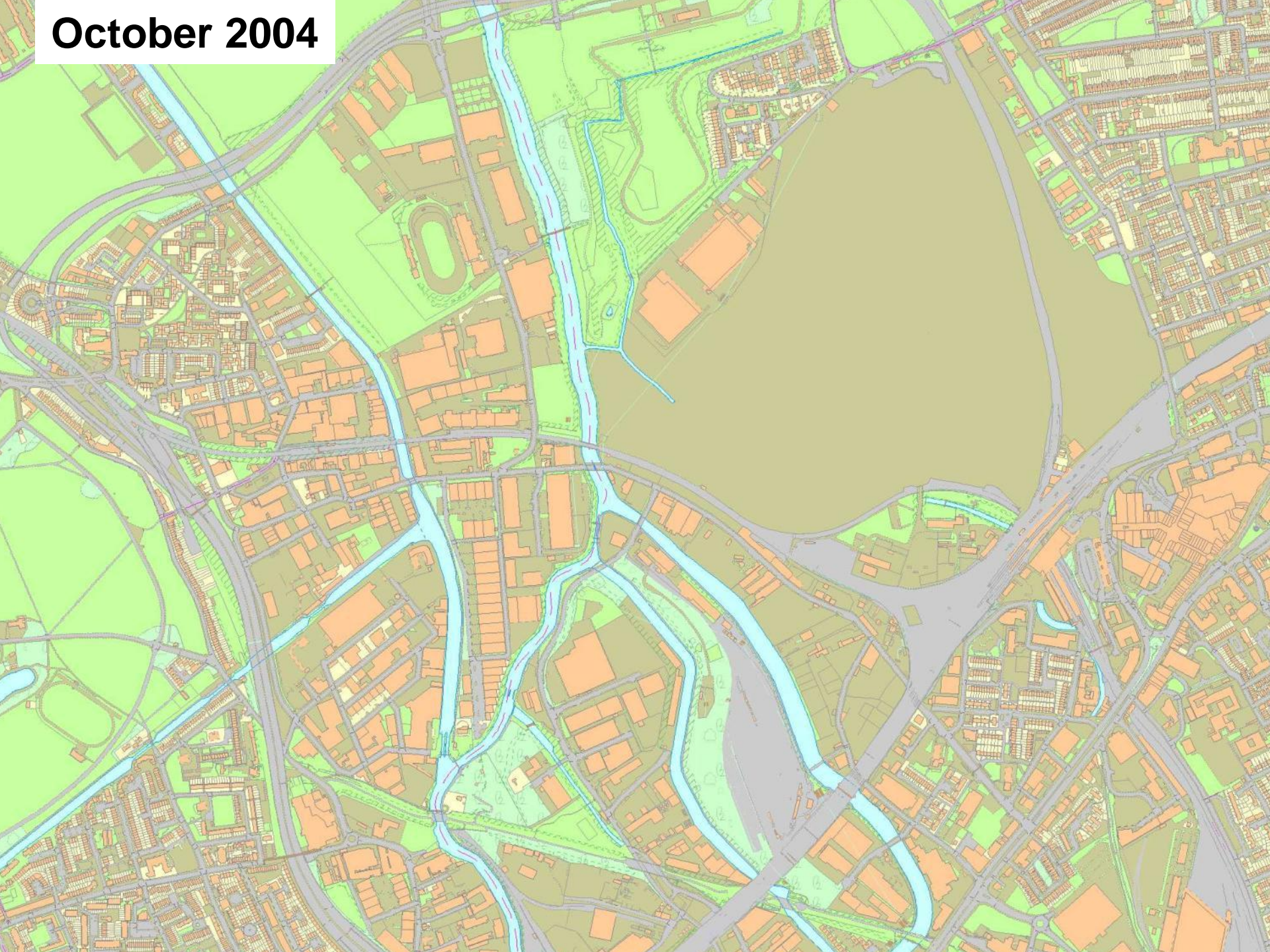


Olympic Park 30 June 2012
<4cm GSD

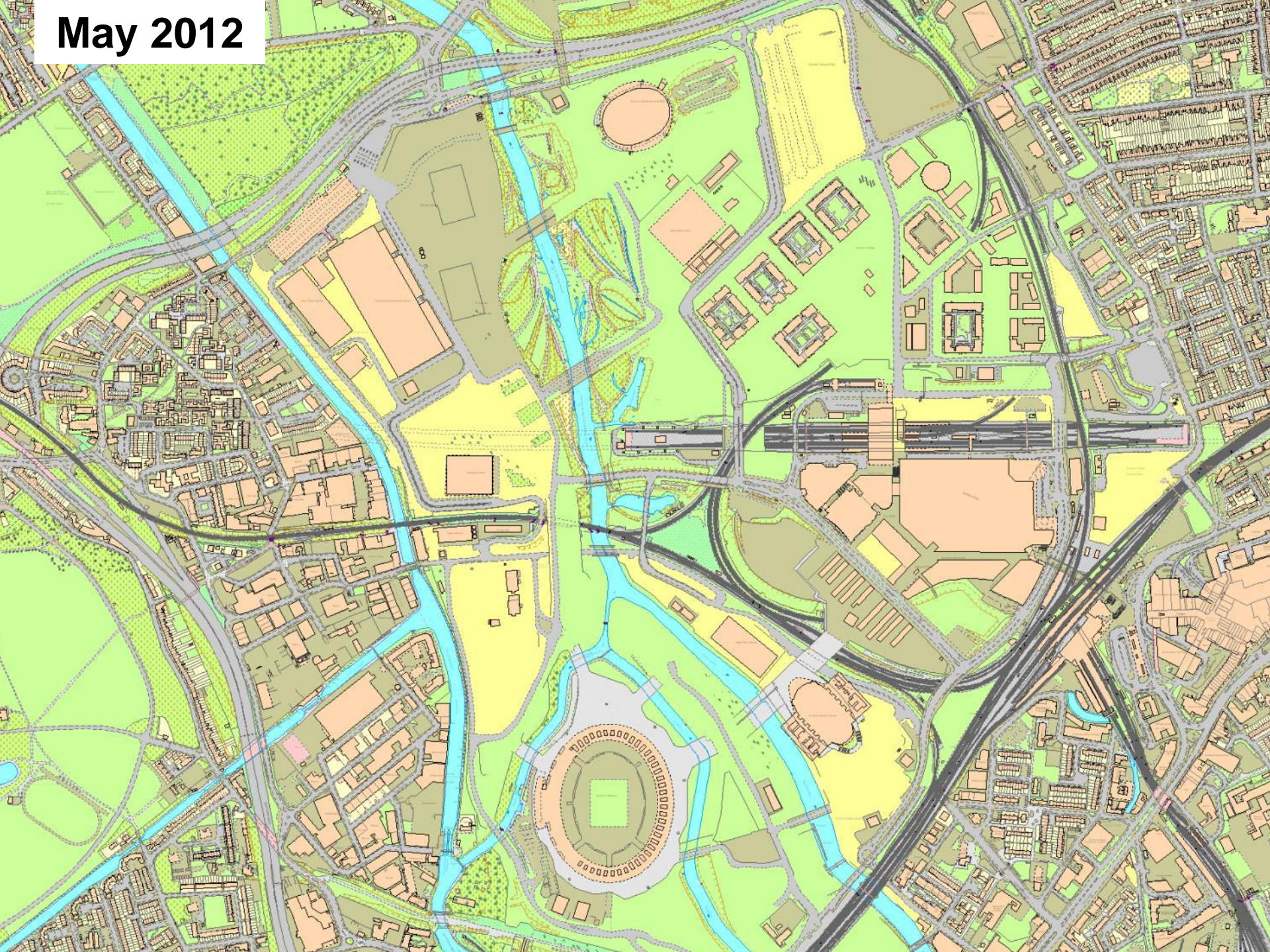


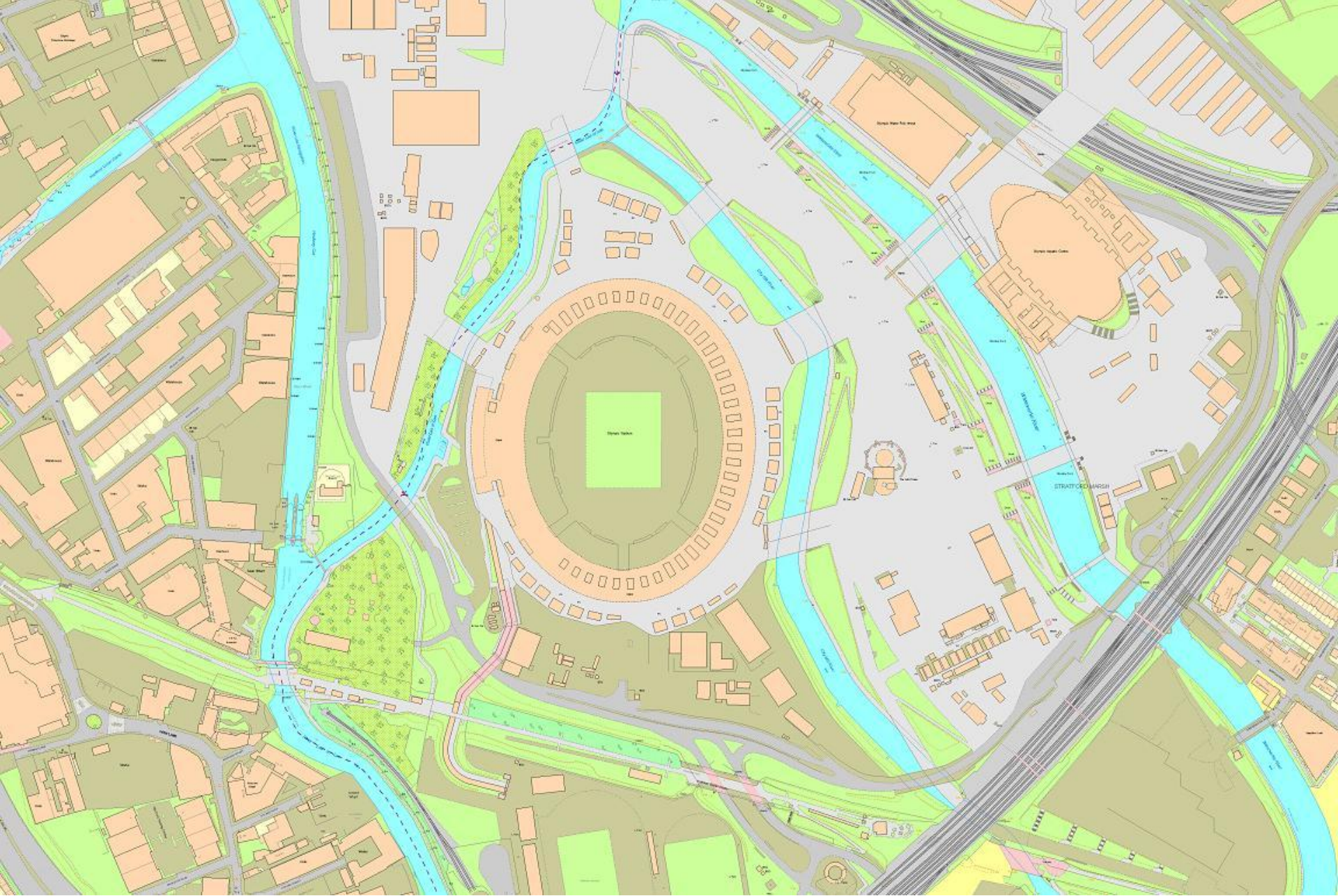


October 2004



May 2012

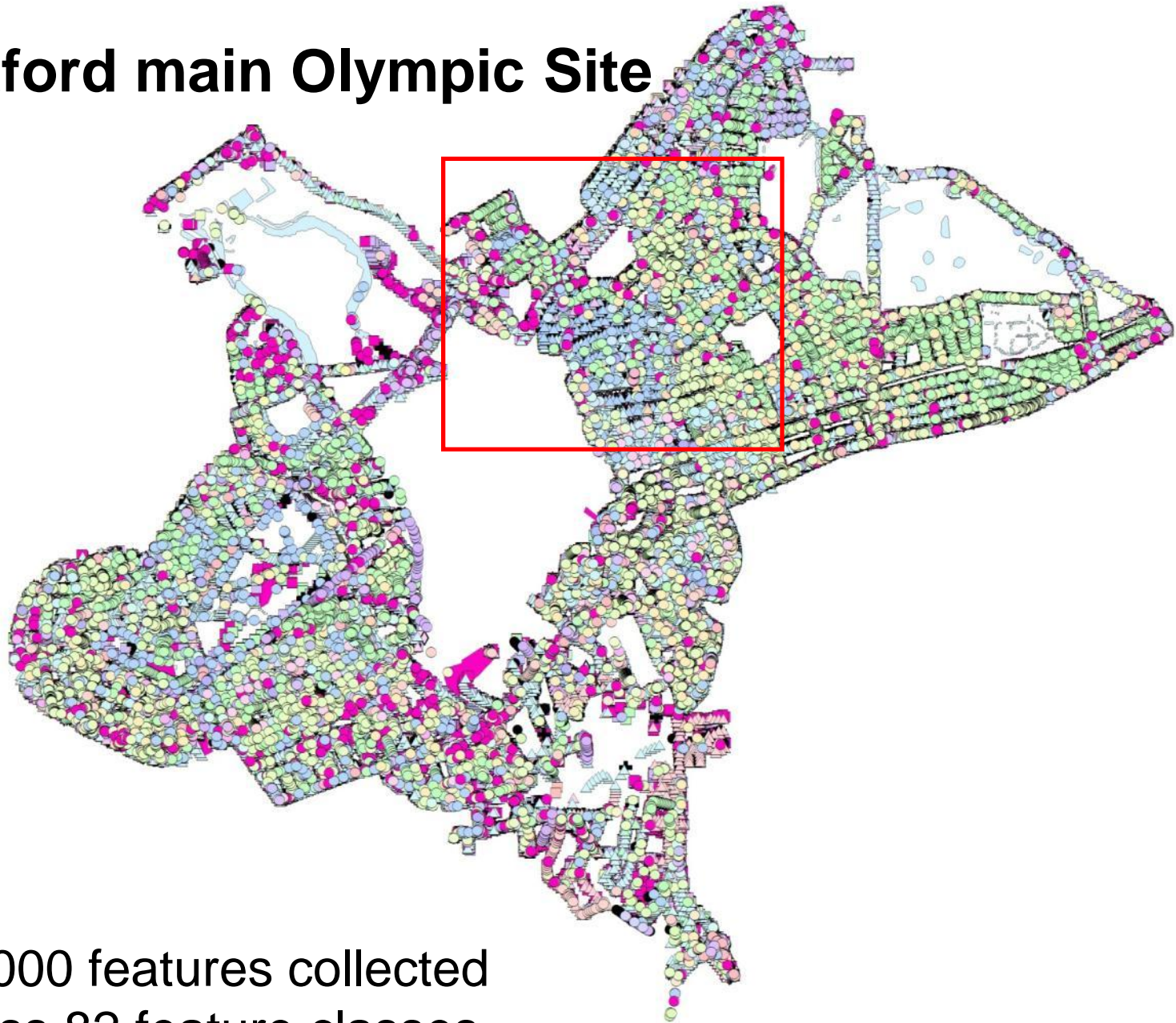





As at 29th June 2012



Stratford main Olympic Site



157,000 features collected
across 82 feature classes



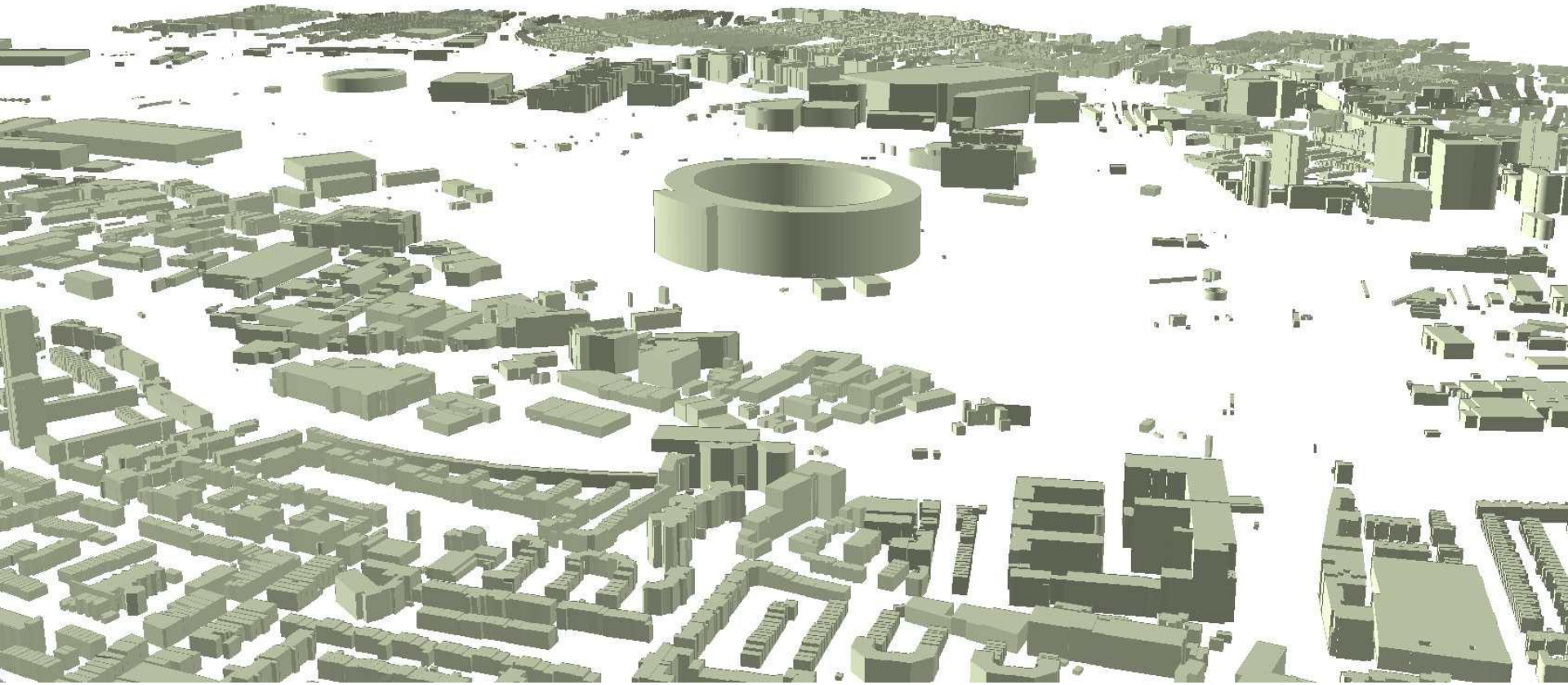
Across all main venues, over 550,000 features were collected and ground verified



Street furniture coverage around Lords Cricket Ground

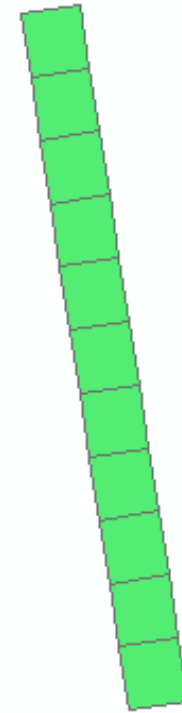
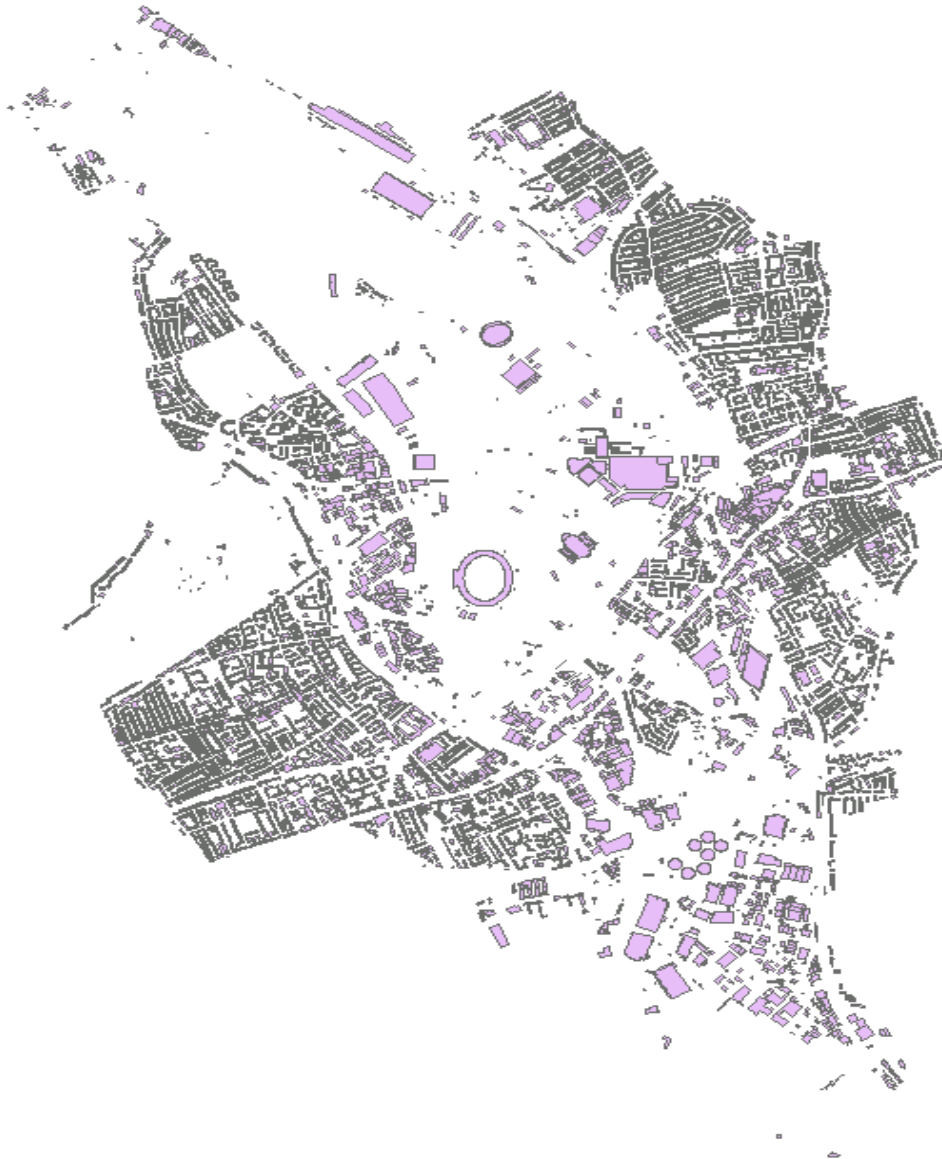


Enabling the third dimension



- Simple Building Heights were automatically generated using in-house developed software processing a combination of OS MasterMap Topo and High Resolution Imagery

Simple Building Heights



TOID	Ex. Ground Min	Ex. Roof Min	Ex. Roof Max
(north to south)			
osgb1000006617715	9.7	13.61	15.62
osgb1000006617716	9.7	13.15	14.98
osgb1000006617717	9.69	12.91	14.92
osgb1000006617718	9.69	12.81	14.92
osgb1000006617719	9.69	12.56	14.91
osgb1000006617720	9.74	12.74	14.91
osgb1000006617721	9.78	12.93	14.91
osgb1000006617722	9.92	13.2	15.14
osgb1000006617723	10.09	13.04	15.14
osgb1000006617724	10.26	13.35	15.06
osgb1000006617666	9.33	13.62	16.82

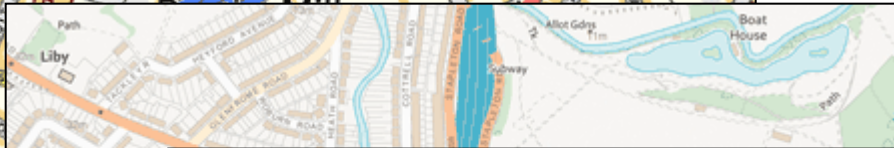
Derived data: synchronisation of five key products



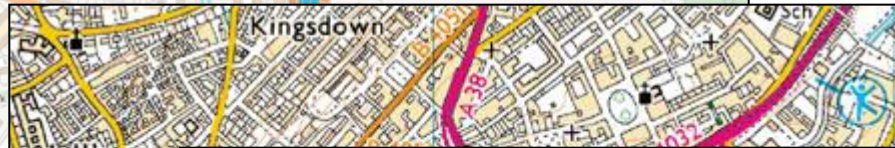
OS VectorMap® Local



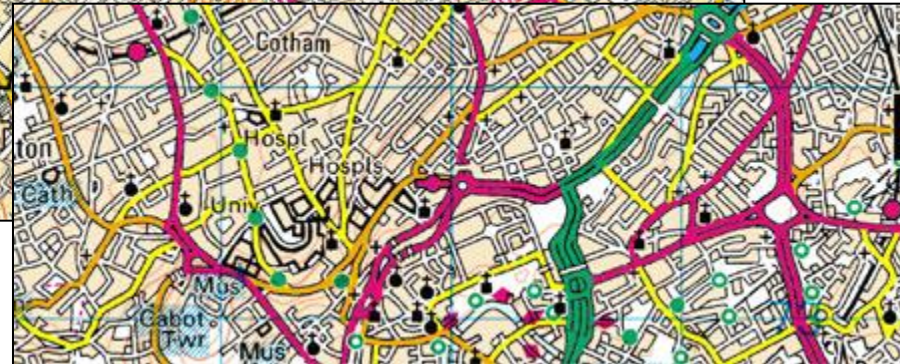
OS Street View®



1: 10 000 Scale
Raster



1:25 000 Scale
Colour Raster

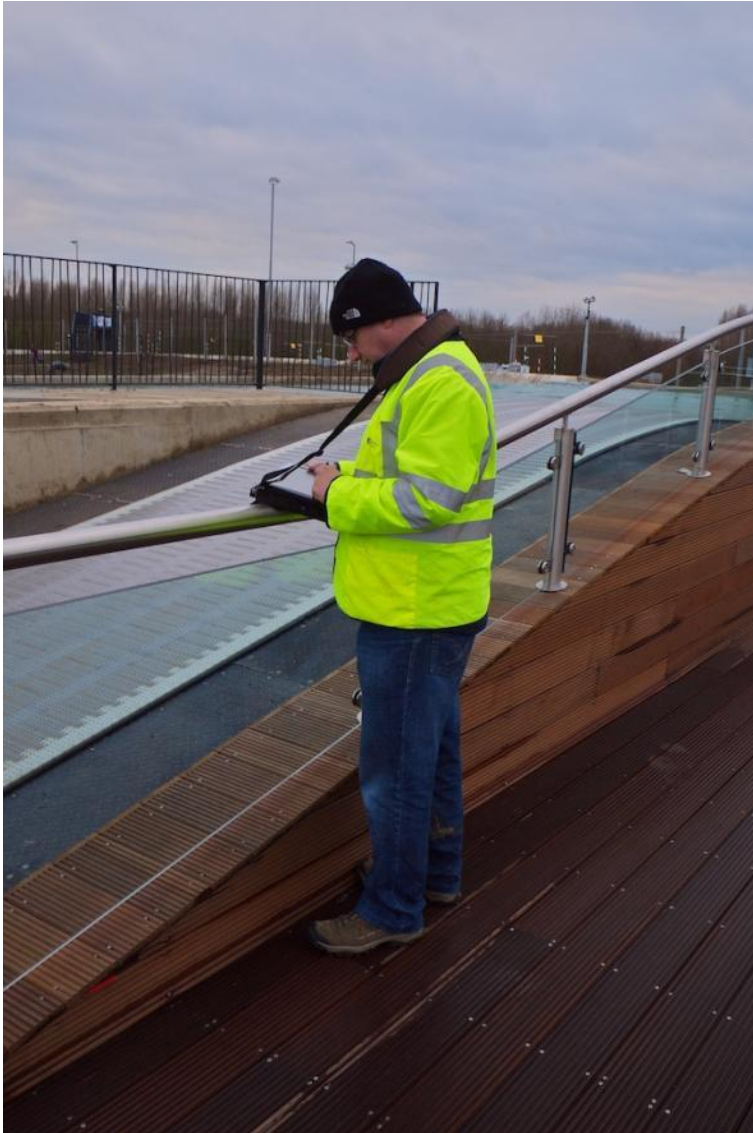


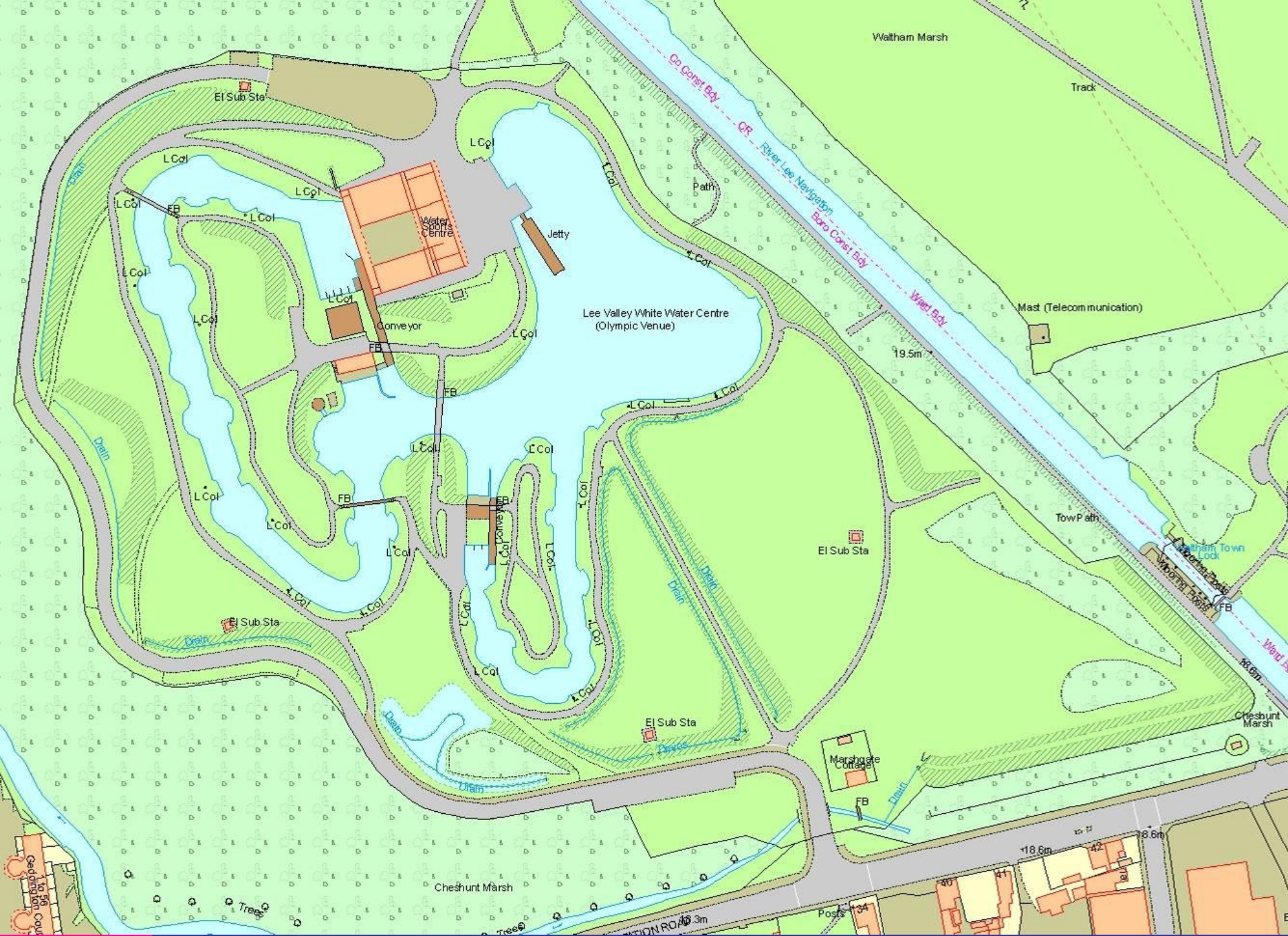
1:50 000 Scale
Colour Raster

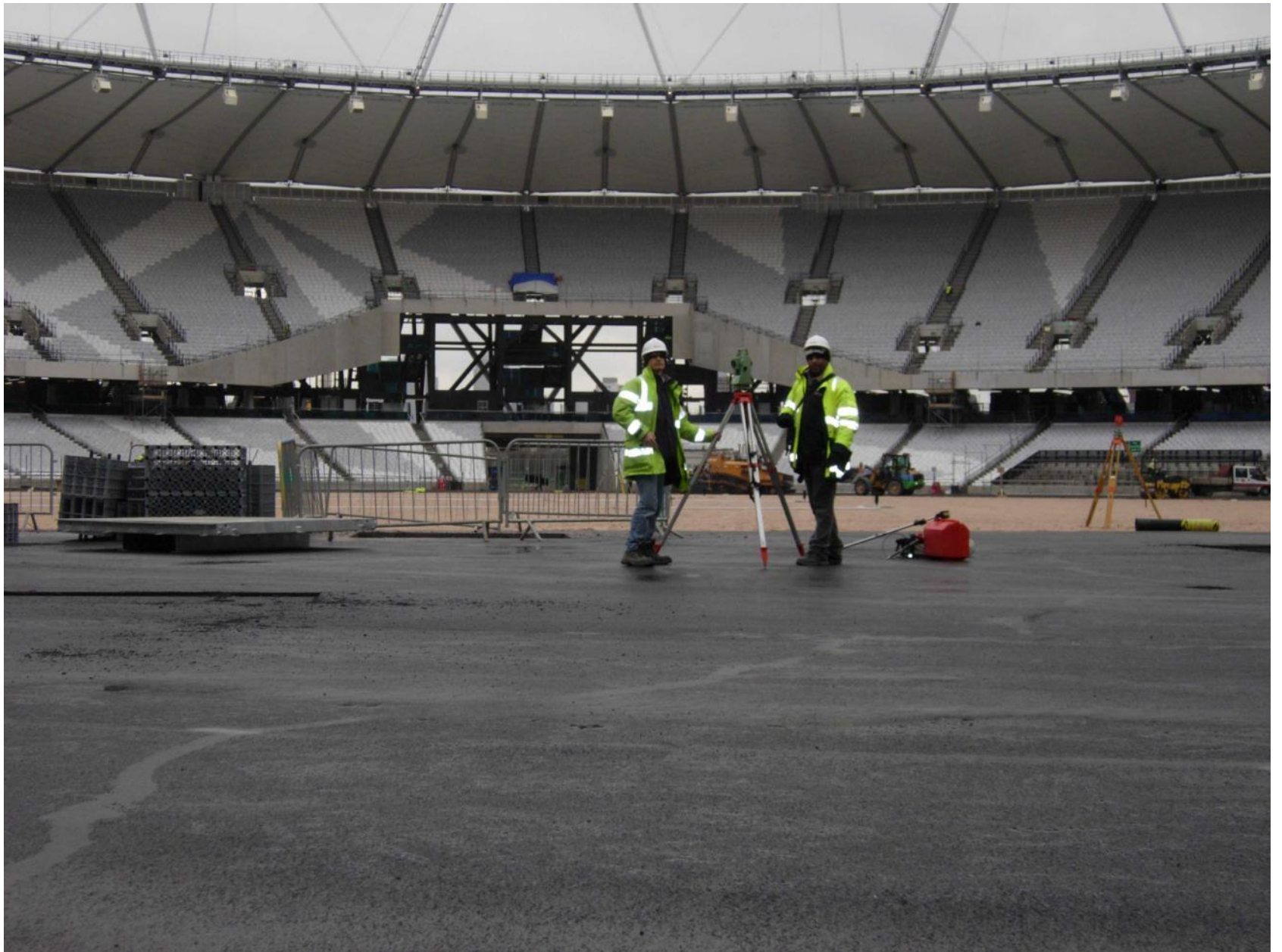
Lee Valley White Water Centre



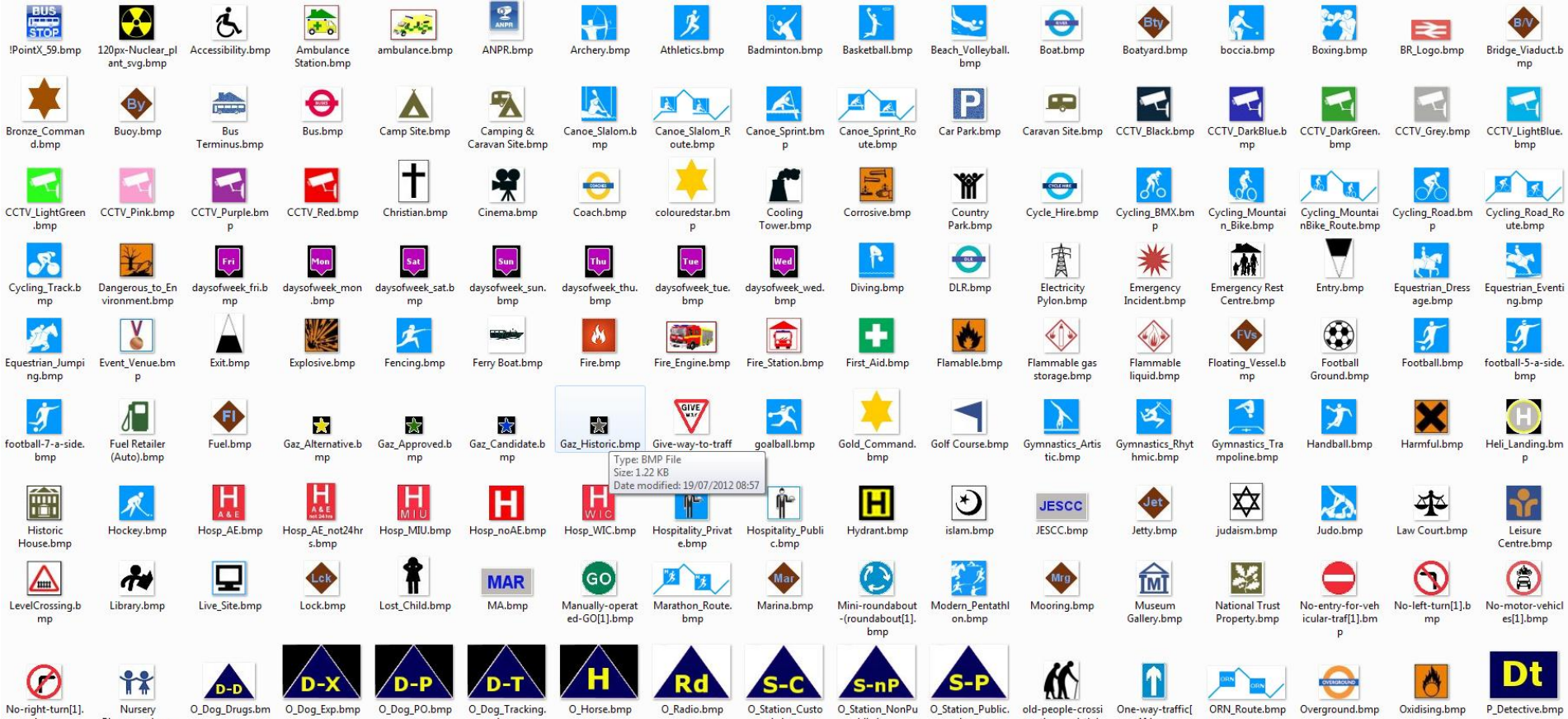
A combination of remote-sensed capture and field completion



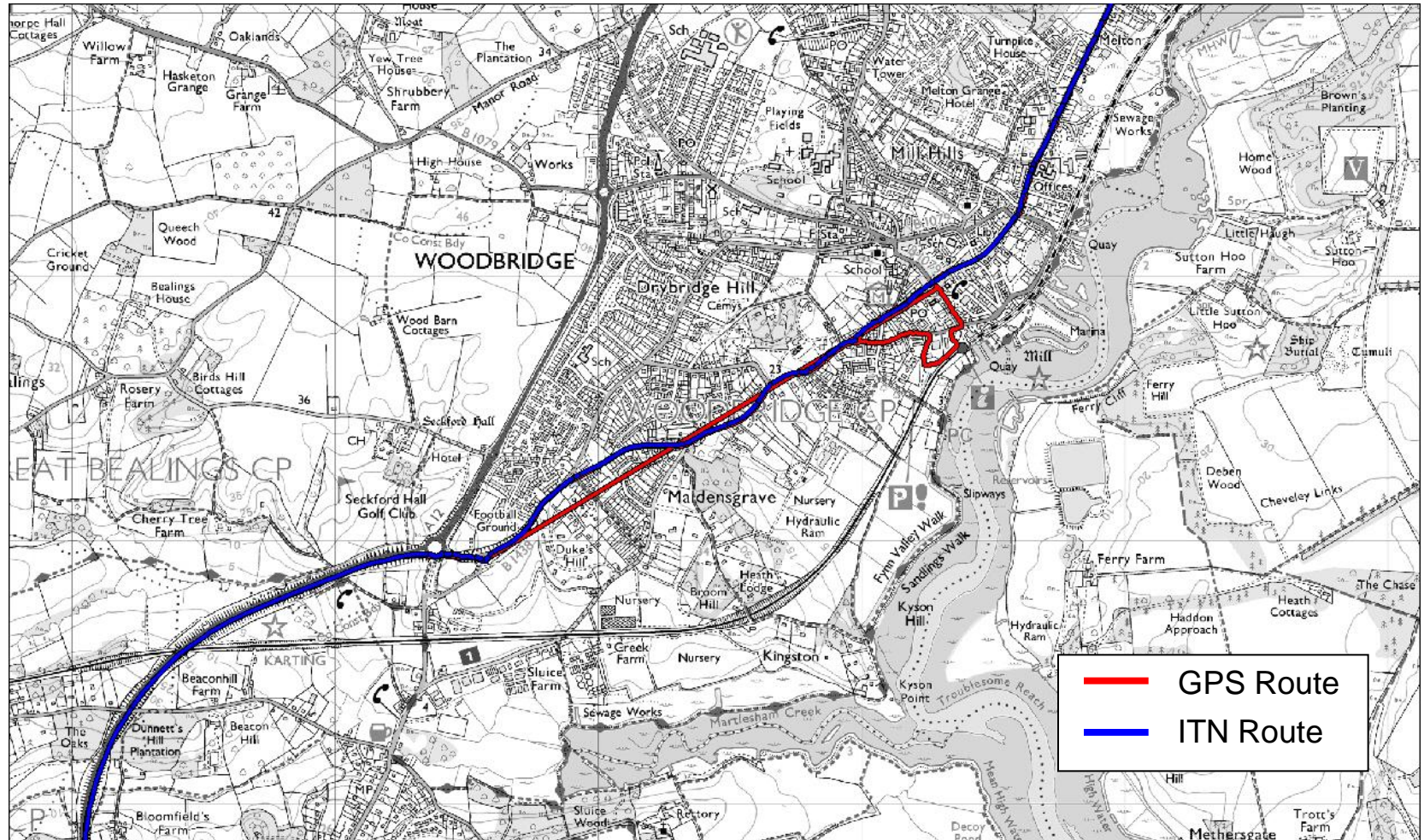




Symbology



Olympic Torch Relay Route – GPS data cleaning and matching to OS MasterMap ITN Layer



Olympic torch relay route – GPS data matched to ITN



- GPS Attribution:
- ID: Day 48
- Route: Norwich to Ipswich

ITN Attribution:

For each ITN link which constitute the route...

ID: TOID

Descriptive Term: B Road

Road Name: IPSWICH ROAD

DfT Number: B1438

Nature of Road: Single Carriageway

Length: 442.95m

Start Node: 4000000029211768

End Node: 4000000029211751

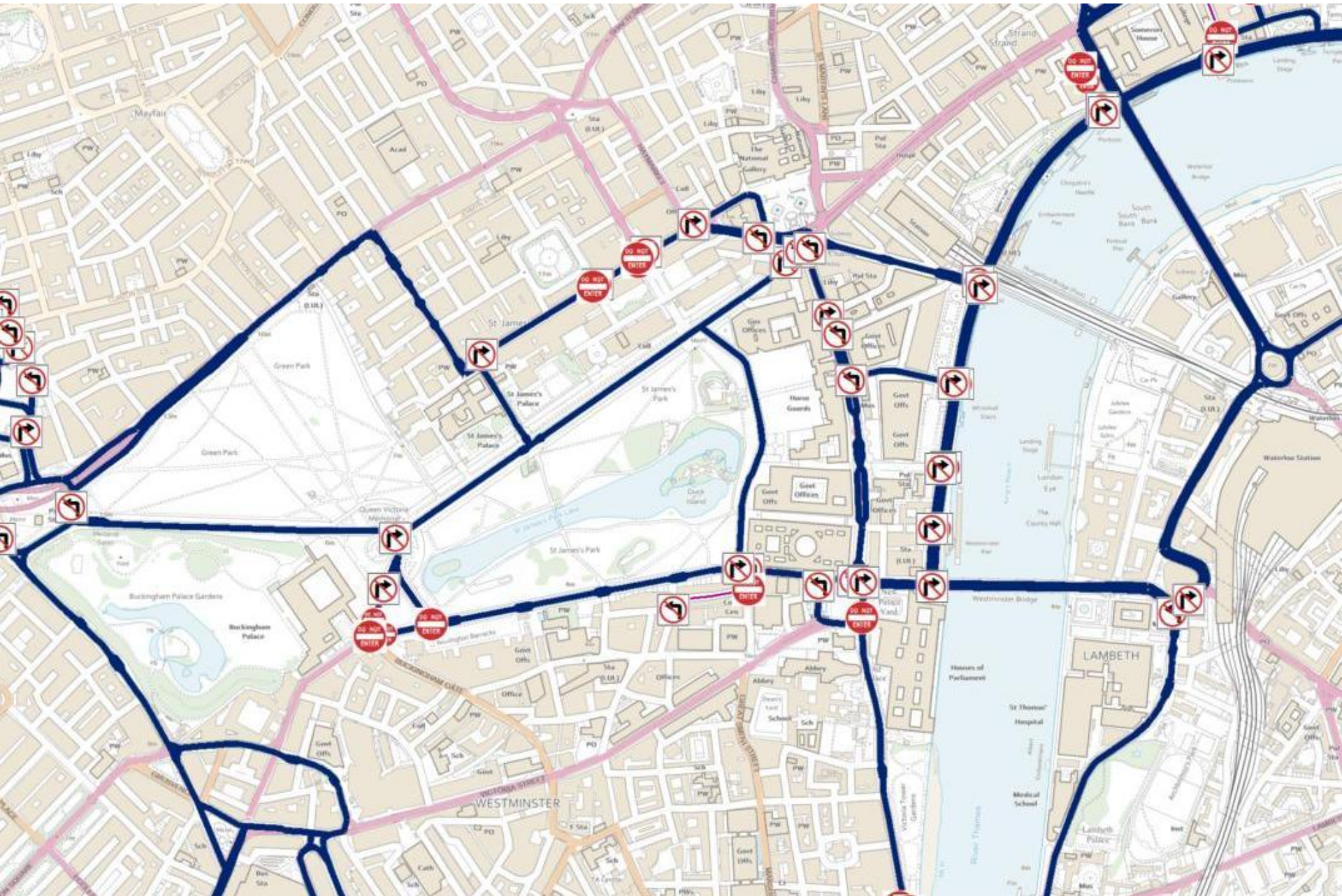
Last Change Date: 25/03/2009

Reason for Change: Modified

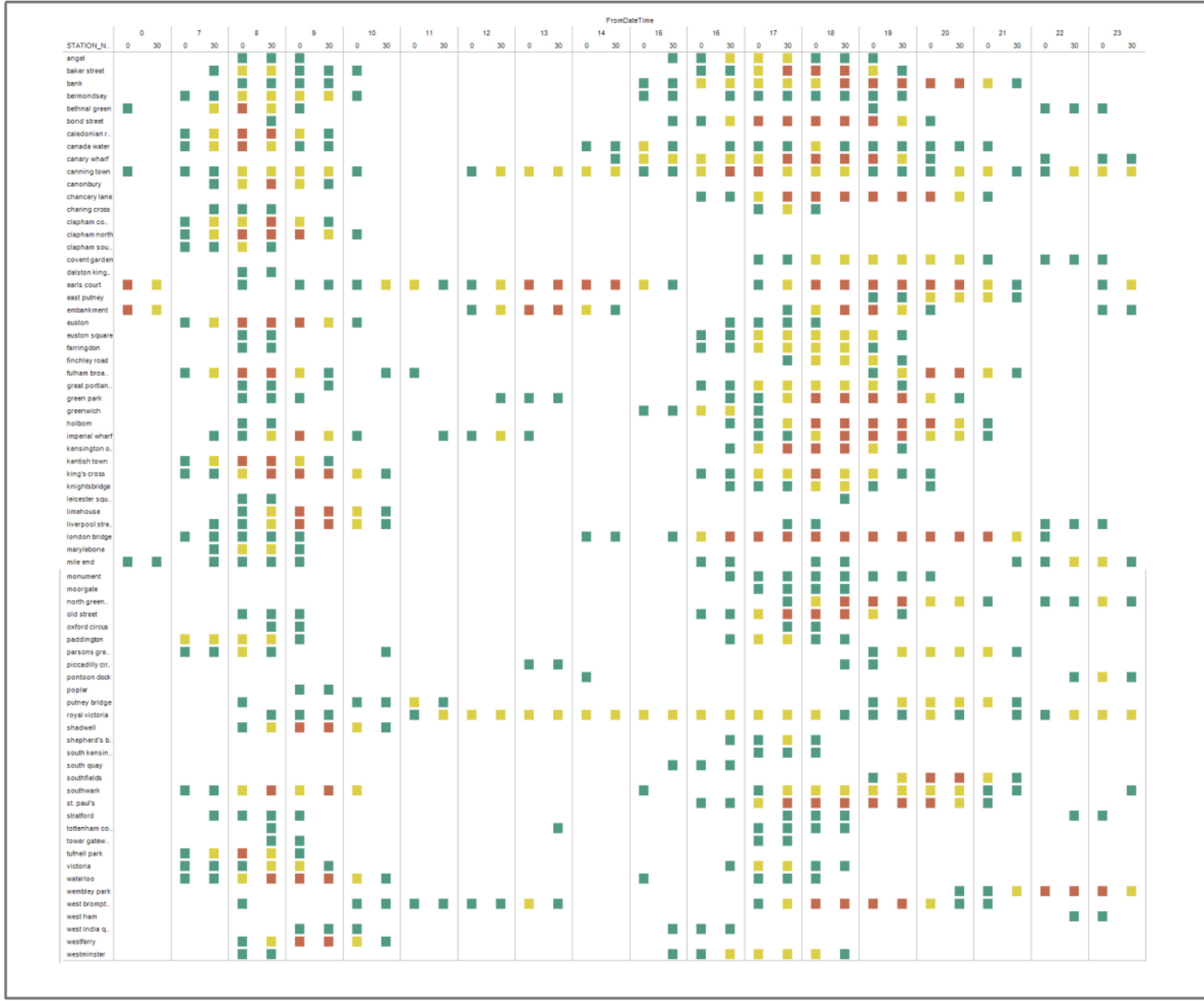
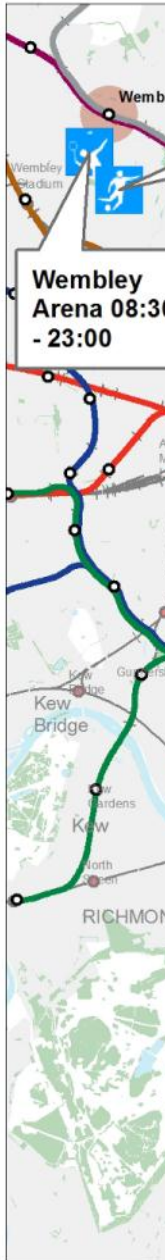
Olympic Route Network (ORN) analysis



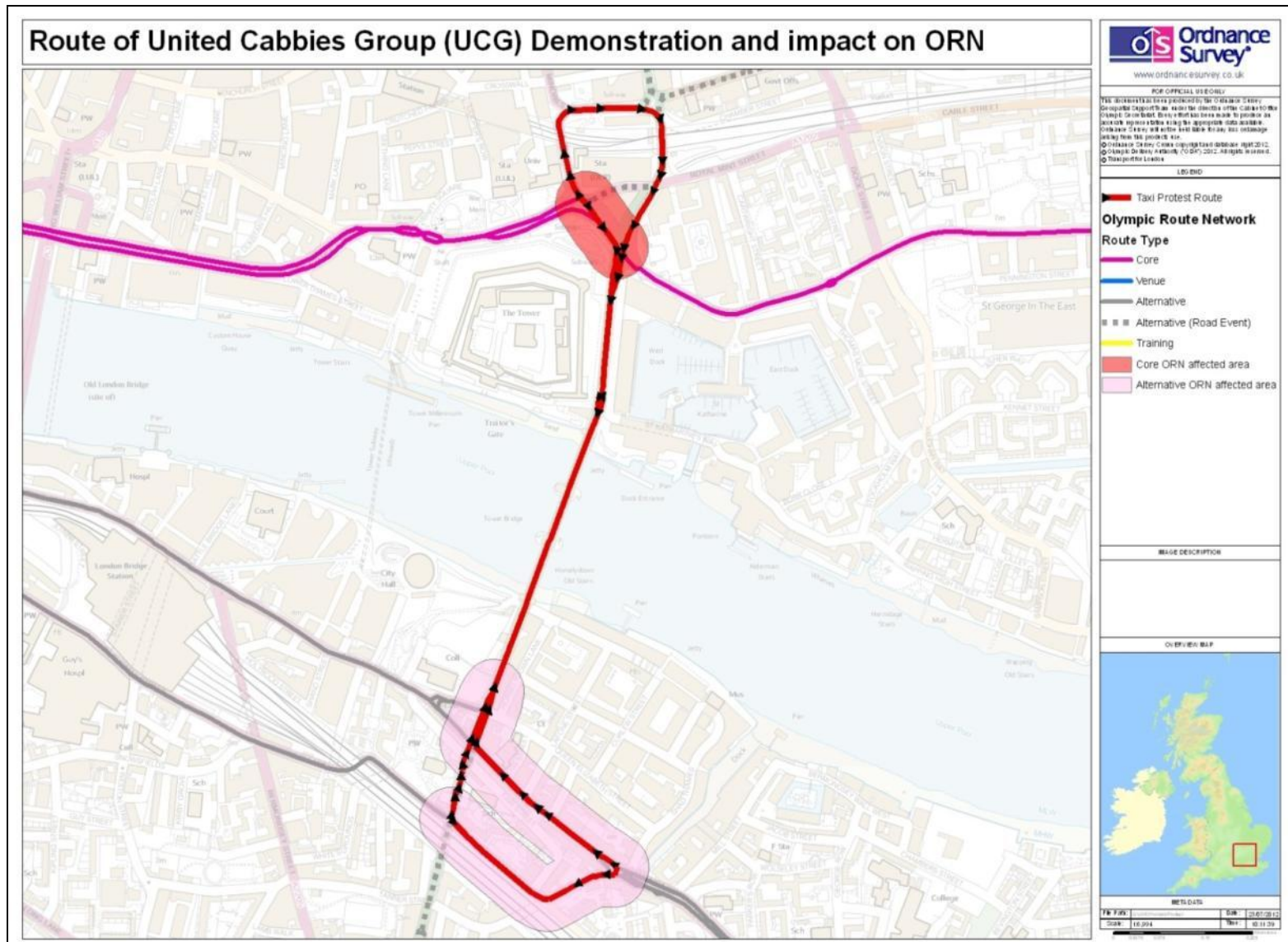
Olympic Route Network (ORN) analysis



Daily product – rail transport waiting times

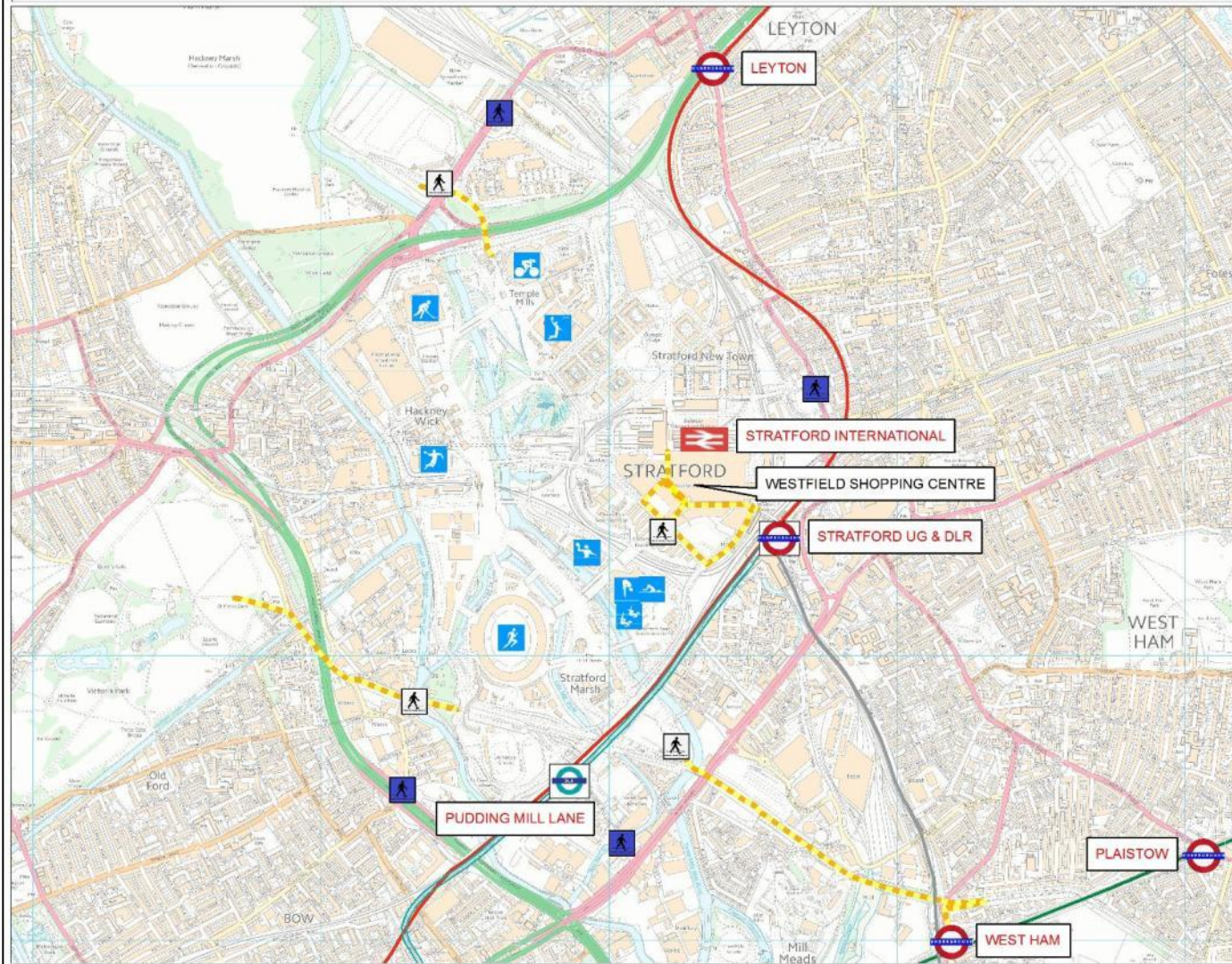


Protest routes and potential impact on Olympic Route Network



Crowd management at Westfield Shopping Centre

Access to Olympic Park on 04/08/12 & 05/08/12



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- LEGEND**
- Athletics
 - Basketball
 - Cycle Track
 - Diving
 - Handball
 - Hockey
 - Swimming
 - Synchronised Swimming
 - Water Polo
 - Underground Station
 - DLR
 - Railway Station
 - Athletes, Games Family and Officials Access
 - Spectator Access
 - Spectator Walking Route

IMAGE DESCRIPTION

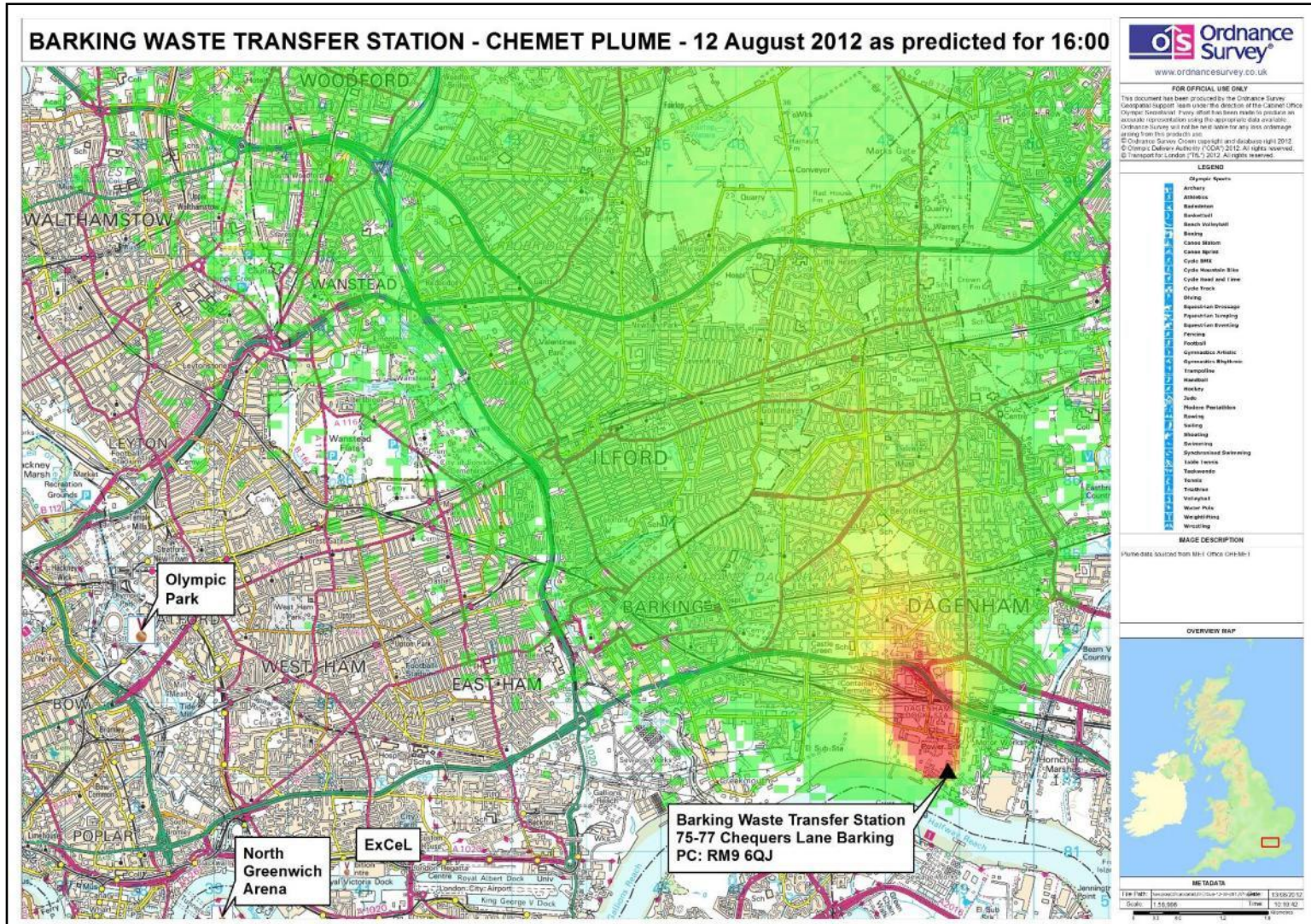
OVERVIEW MAP



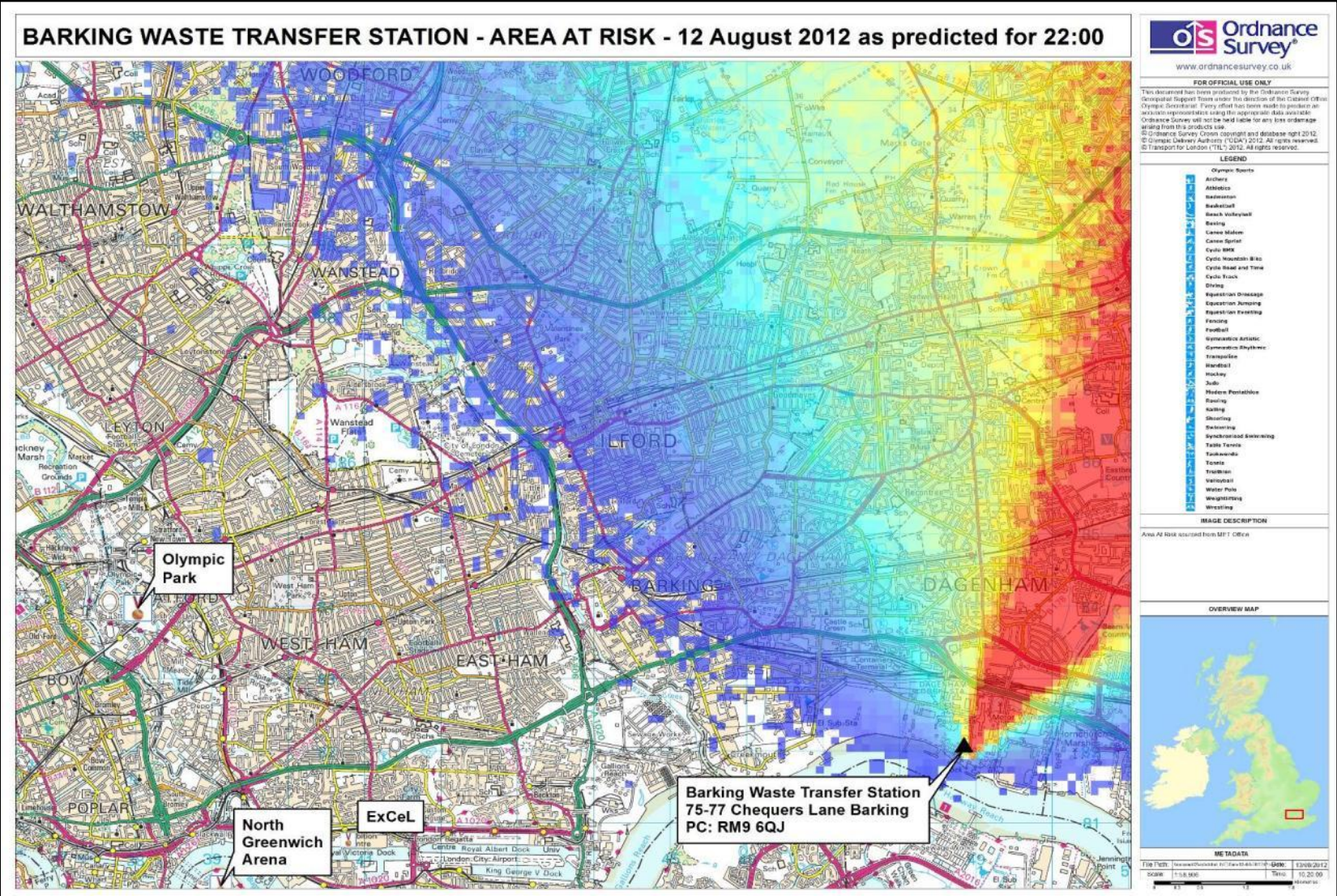
METADATA

File Path	\\osgeo\osgeo\osgeo\12	Date	01/08/2012
Scale	1:17,277	EPSG	4839

Plume impact of major fire in East London – time series



Area at risk due to major fire in East London - time series



Location matters

- *'We believe a lot of poverty has to do with the poverty of information...if we can democratise our information we can radicalise our democracy.'*
Adviser to the Prime Minister of India
- White House memo: *'Various federal programs can function more effectively if they include well-focused, place-based strategies.'*
- *'Effective policy depends on good information...it is vital to understand not just what is happening, but also where it is happening.'*
President of the European Council

A Global Geospatial Mandate

At its 47th plenary in July 2011, ECOSOC, recognizing the importance of global geospatial information, established the Committee of Experts on Global Geospatial Information Management (UN-GGIM), and:

- Requested the Committee to present to ECOSOC in 2016 a comprehensive review of all aspects of its work and operations, in order to allow Member States to assess its effectiveness.
- Encouraged Member States to hold regular high-level, multi-stakeholder discussions on global geospatial information, including through the convening of global forums, with a view to promoting a comprehensive dialogue with all relevant actors and bodies.

Resolution

2011/24

Committee of Experts on Global Geospatial Information Management

The Economic and Social Council,

1. *Takes note* of the report of the Secretary-General on global geospatial information management³ and the recommendations contained therein;
2. *Recognizes* the need to promote international cooperation in the field of global geospatial information;
3. *Decides*, in this regard, to establish the Committee of Experts on Global Geospatial Information Management, in accordance with the terms of reference contained in the annex to the present resolution, to be established and administered within existing resources and organized accordingly, and requests the Committee to present to the Economic and Social Council in 2016 a comprehensive review of all aspects of its work and operations, in order to allow Member States to assess its effectiveness;
4. *Encourages* Member States to hold regular high-level, multi-stakeholder discussions on global geospatial information, including through the convening of global forums, with a view to promoting a comprehensive dialogue with all relevant actors and bodies;
5. *Emphasizes* the importance of promoting national, regional and global efforts to foster the exchange of knowledge and expertise, to assist developing countries in building and strengthening national capacities in this field.

*47th plenary meeting
27 July 2011*

The United Nations steps forward: Global Geospatial Information Management

“There is a significant gap in the management of geospatial information globally”

Paul Cheung, Director, United Nations Statistics Division,
Cambridge Conference June 2011



UN-GGIM: A global initiative

Formal inter-governmental UN Committee of Experts to:

- Discuss, enhance and coordinate Global Geospatial Information Management activities by involving **Member States** at the highest level. Reports to ECOSOC
- Make joint decisions and set directions on the use of geospatial information within national and global policy frameworks
- Work with Governments to improve policy, institutional arrangements, and legal frameworks
- Address global issues and contribute collective knowledge as a community with shared interests and concerns
- Develop effective strategies to build geospatial capacity in developing countries



UN-GGIM: Why a global mechanism?

- Significant gap in the recognition and management of geospatial information globally
- Lack of a global consultative and decision-making mechanism among Member States in:
 - setting global norms on geospatial information;
 - developing common tools; and
 - bringing geospatial information to bear on global policy issues
- This gap is increasingly being filled by the private sector, reducing the role and influence of Governments
- Governments, not the private sector, have the mandate and accountability to maintain and deliver the national geospatial information base and related policy

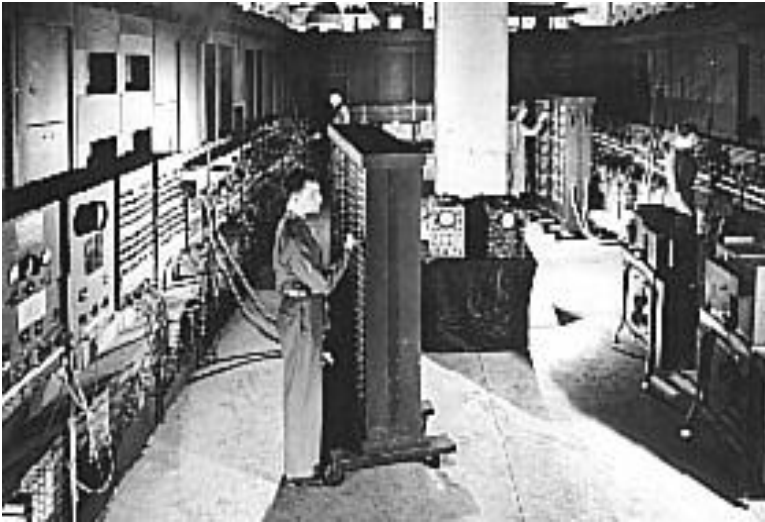


Second Session of the Committee of Experts

“...building effective geospatial infrastructures and promoting greater use of geospatial information are part of a new frontier in harnessing science and technology for advancing sustainable development.”

*Wu Hongbo
Under-Secretary-General for
Economic and Social Affairs
August 2012*



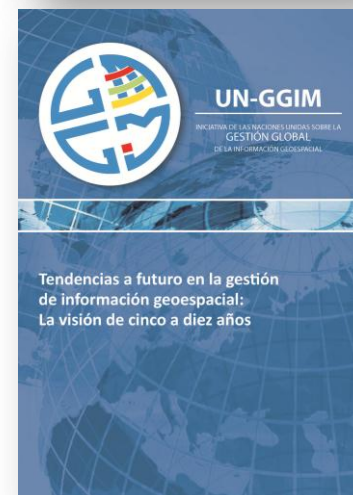
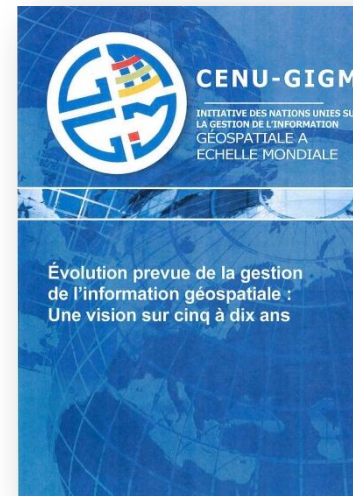
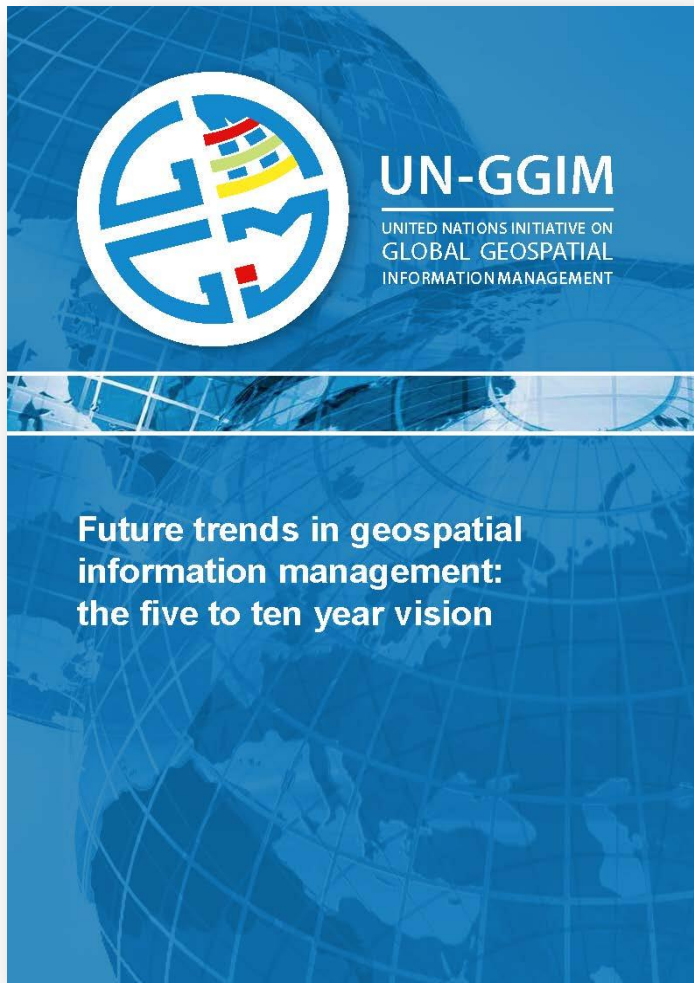


"In future computers may weigh less than 1.5 tons"
Popular Mechanics magazine 1949



"640k RAM should be enough for anyone"
Bill Gates 1981

Future trends in geospatial information management: the 5-10 year vision



“Инициатива глобальной ООН по Глобальному Управлению Геопространственной Информацией”
Секретариат Инициативы Организации Объединённых Наций по Глобальному Управлению Геопространственной Информацией. Женева, Швейцария

Будущие тенденции управления геопространственной информацией: взгляд на пять-десять лет

Документ был опубликован Картографическим Управлением (Полкобразин) по поручению Секретариата Инициативы глобальной ООН по Управлению Глобальной Геопространственной Информацией

Редакция авторов: Давид Каратаргю, Давид Селес, Картографическое управление

Выпущено: Октябрь 2011
Первый просмотр: Август 2012
Второй просмотр: Январь 2013
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Весь отчет или его часть могут быть опубликованы только при условии указания ссылки на источник. «Будущие тенденции геопространственного информационного менеджмента: взгляд на пять-десять лет», июнь 2013 г.

Будущие тенденции управления геопространственной информацией: взгляд на пять-десять лет

Содержание:

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Качество информации 5

Изданные 7

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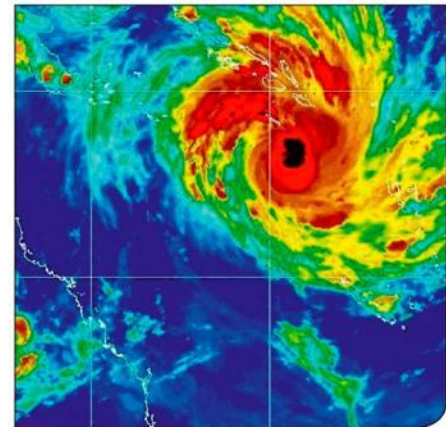
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Five broad themes identified

- Trends in technology and the future direction of data creation, maintenance and management;
- Legal and policy developments;
- Skills requirements and training mechanisms;
- The role of the private sector and non-governmental sectors; and
- The future role of governments in data provision and management.

How can you measure and monitor sustainable development...



...without location and geography?

Geospatial Information: its importance to governments



“In Namibia a country in which water is a scarce resource...spatial data is only below water in significance”

Minister Alpheus G. !Naruseb, Minister of Lands and Resettlement, Namibia



“We envisage a dynamic Pacific if we can be assisted in implementing the UN-GGIM Resolutions for geospatial information. We need to put in place a solid framework from local to national then regional level”

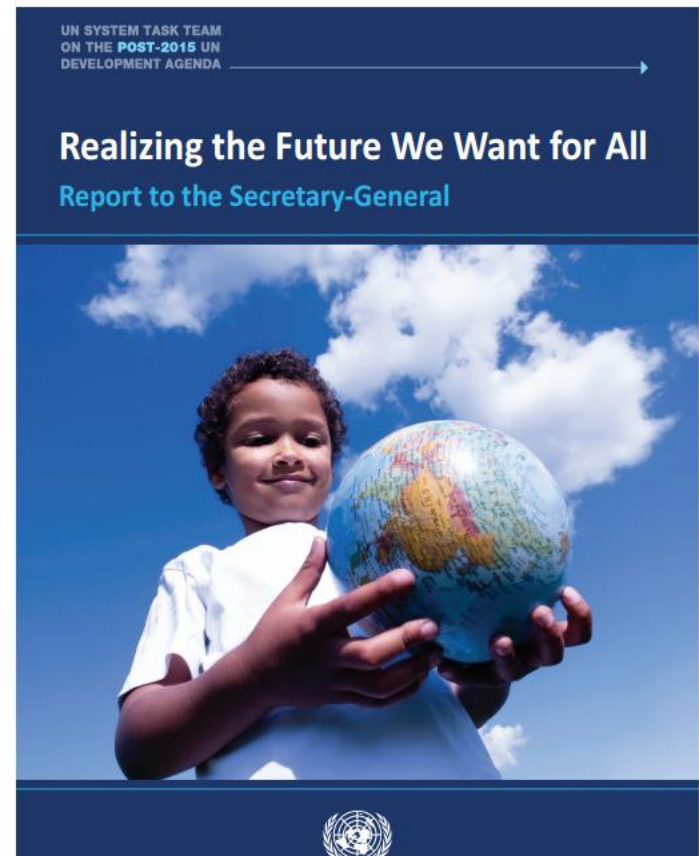
Tevita Boseiwaqa, Permanent Secretary for Lands and Mineral Resources, Fiji

Realizing the Future We Want for All

The first report of the UN System Task Team on the Post-2015 UN Development Agenda to the Secretary-General in May 2012, *Realizing the Future We Want for All* outlined a vision for the post-2015 development.

Sets out four core dimensions where progress needs to be made:

- **Inclusive social development:**
including empowering people through land tenure security
- **Environmental sustainability:**
including improved land use planning
- **Inclusive economic development:**
including ensuring access to land and natural resources
- **Peace and Security**



High Level Panel on the Post-2015 Development Agenda

“People are more likely to make long-term investments when they feel secure on their property. But when people or communities lack legal property rights they face the risk that they will be forced to leave their land. Business will also invest less and be less able to contribute to the economy. We know property rights are important, but also realise the challenges of measurement. We urge further work on this issue”.

A NEW GLOBAL PARTNERSHIP: ERADICATE POVERTY AND TRANSFORM ECONOMIES THROUGH SUSTAINABLE DEVELOPMENT

The Report of the High-Level Panel of Eminent Persons on
the Post-2015 Development Agenda

ANNEX II: EVIDENCE OF IMPACT AND EXPLANATION OF ILLUSTRATIVE GOALS

GOAL 1

END POVERTY



- a) Bring the number of people living on less than \$1.25 a day to zero and reduce by x% the share of people living below their country's 2015 national poverty line
- b) Increase by x% the share of women and men, communities and businesses with secure rights to land, property, and other assets
- c) Cover x% of people who are poor and vulnerable with social protection systems
- d) Build resilience and reduce deaths from natural disasters by x%

Land Tenure is recognised by the FAO as key to sustainable development

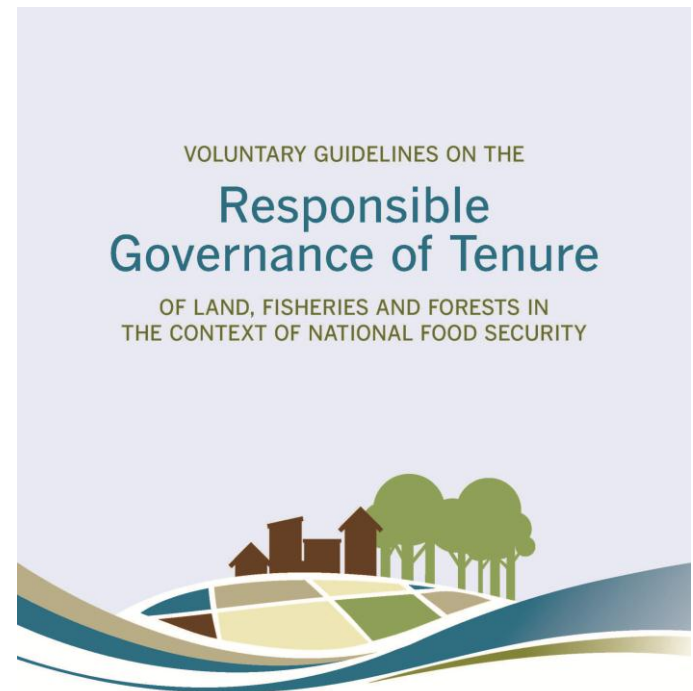


The FAO states explicitly that secure rights to land and greater equity in land access are important across a range of Millennium Development Goals (MDG) – specifically;

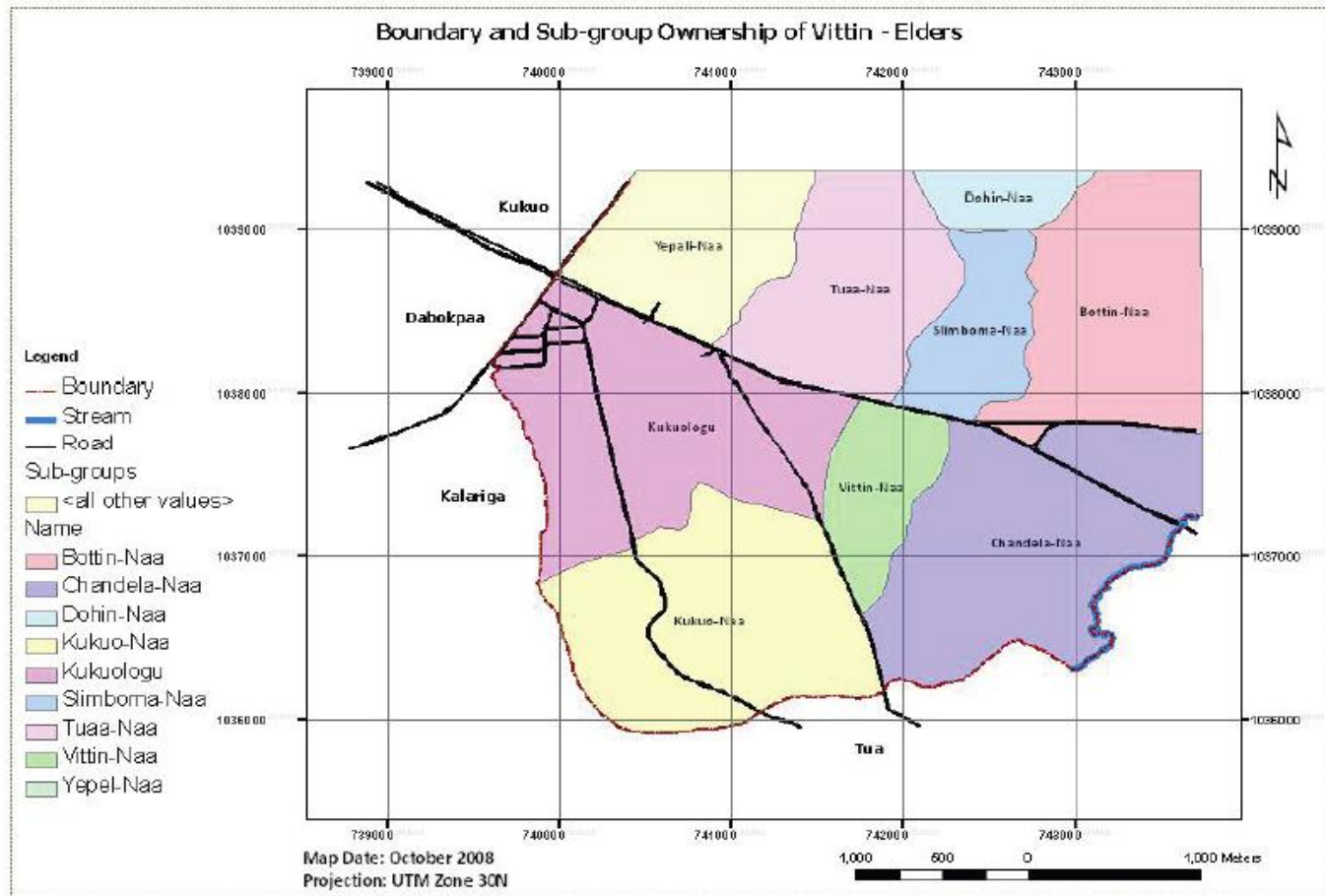
- ‘of great relevance to the attainment of MDG-1 for eradicating poverty and hunger.’
- ‘Land policies and agrarian reforms are of direct relevance to attainment of MDG-3 for gender equality and the empowerment of women,
- ‘MDG-7 for environmental sustainability’
- ‘MDG-8 for establishment of effective policy development’

Responsible Governance of Tenure

- The Guidelines promote responsible governance of tenure of land, fisheries and forests, with respect to all forms of tenure: public, private, communal, indigenous, customary, and informal
- They provide a framework that States can use when developing their own strategies, policies, legislation, programmes and activities
- They allow governments, civil society, the private sector and citizens to judge whether their proposed actions and the actions of others constitute acceptable practices
- Officially endorsed by the Committee on World Food Security on 11 May 2012.

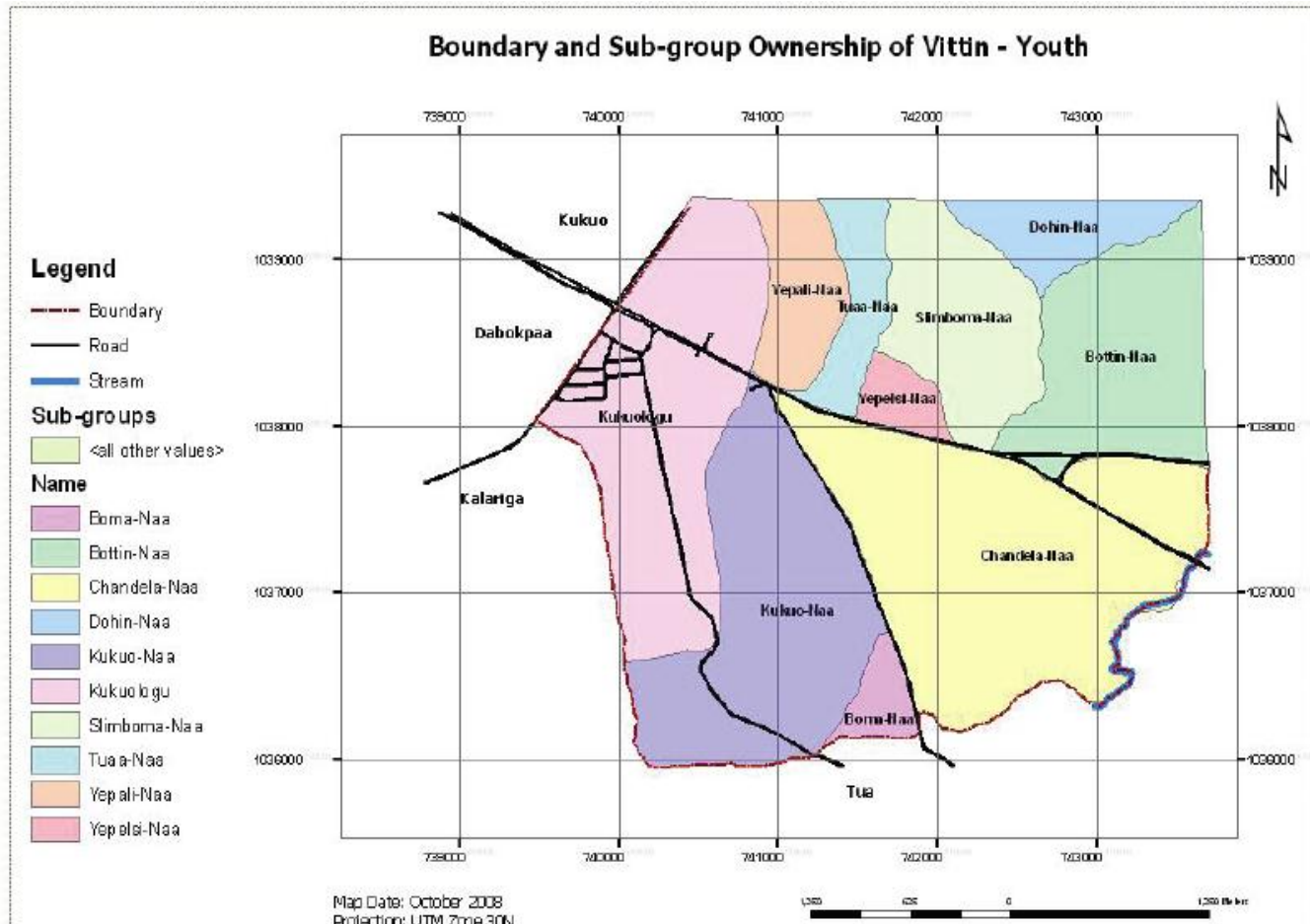


A case study from Vittin, Ghana – even in a single community, different groups do not hold a common view of customary land tenure



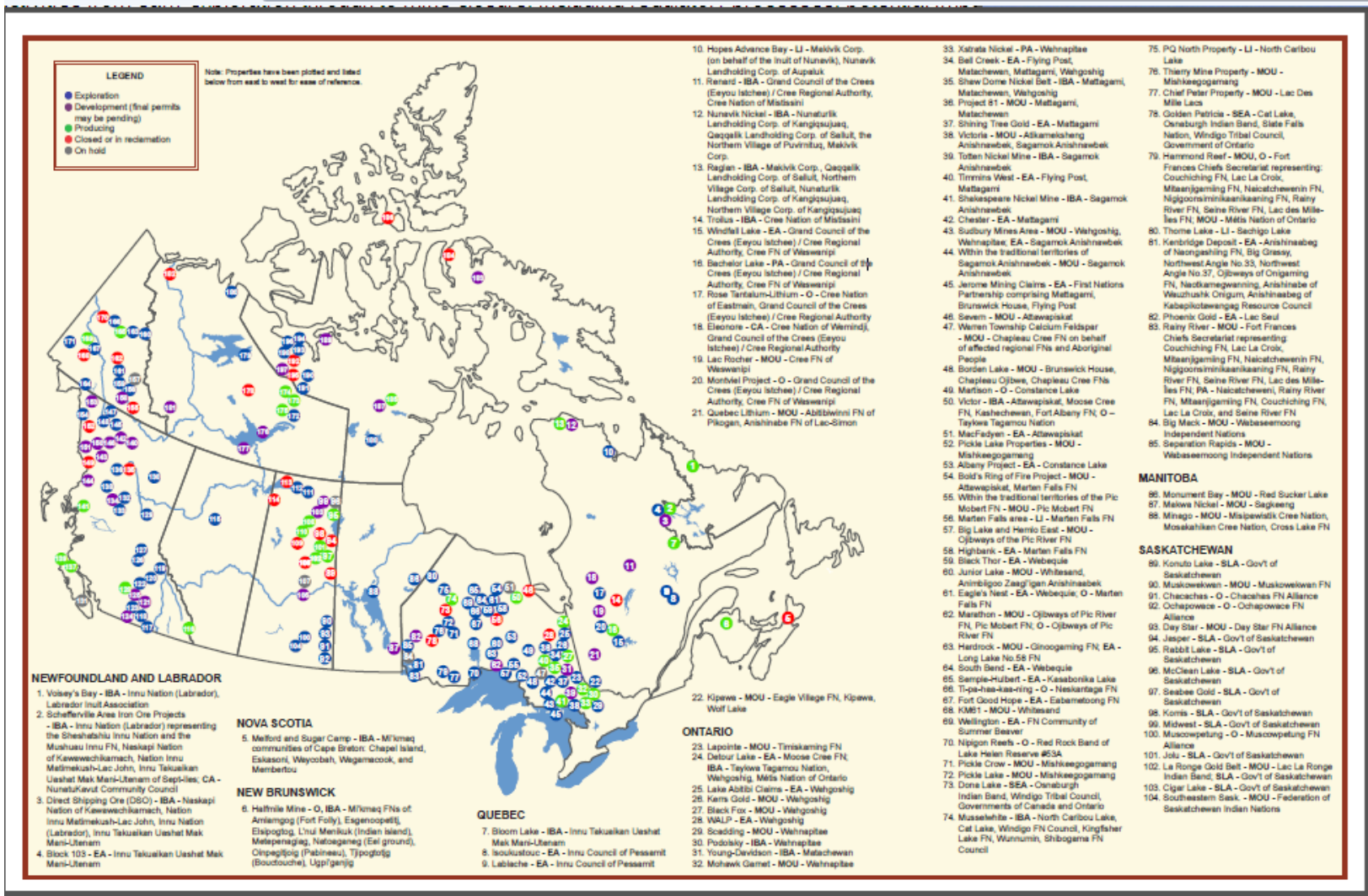
Elders' view of customary land tenure

A case study from Vittin, Ghana – even in a single community, different groups do not hold a common view of customary land tenure



Youth view of customary land tenure

Mining agreements reached with Aboriginal communities in Canada



“G8 and developing countries will work together to make the use of natural resources more transparent”

- At the G8 “Open for Growth” event on 15 June 2013 G8 members committed to:
 - Support greater transparency in land transactions including at early stages, responsible governance of tenure of land, and increase capacity in developing countries
 - Establish partnerships with at least seven developing countries, including relevant international organisations, to accelerate and target support to countries’ existing land governance programmes in conjunction with businesses, in particular farmers, and civil society
- The seven pilot country partnerships are Burkina Faso (US), Niger (EU), Nigeria (UK), Senegal (France), South Sudan (EU), Tanzania (UK) and Ethiopia (UK, US, Germany).

What are the challenges facing National Mapping and Land Agencies?

1. Need for a national, regional and global strategic framework for geospatial information;
2. Need to establish best practices in institutional arrangements, legal and common frameworks;
3. Build capability and capacity, especially in developing countries;
4. Assuring the quality of geospatial information;
5. Promoting data sharing, accessibility and dissemination;
6. Embracing trends in information technology;
7. Promoting geospatial advocacy and awareness;
8. Partnering with civil society and the private sector; and
9. Linking geospatial information to statistics

The future role of governments in geospatial data provision and management

End-users should be able to consume government-assured spatial data with the level of trust in quality as they do when they get water from the tap – they are going to get what they expect.



UN-GGIM

United Nations Initiative on
Global Geospatial Information Management

Positioning geospatial information to address global challenges

ggim.un.org

Authoritative data: fulfilling the needs of regional, national and global development

