OS MASTERMAP TOPOGRAPHY LAYER

STYLING OPTIONS WEBINAR

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July 2015

New styling options for Topography Layer

Agenda

- Introduction
- Demonstration of new styling options
- Where to get the code
- Topography Layer upgrade overview
- Timeline
- Questions

Current version 7 Topography Layer

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Upgraded version 9 Topography Layer

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OS MASTERMAP TOPOGRAPHY LAYER

NEW STYLING OPTIONS

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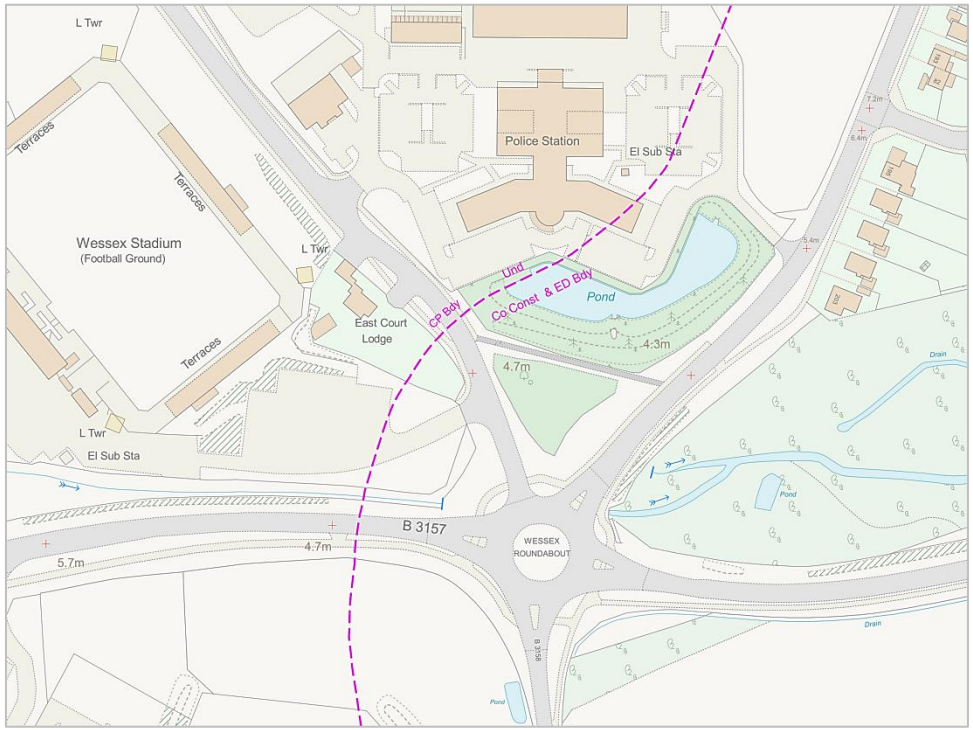
July 2015

New styling options for Topography Layer

Agenda

- Current styling methods
- Styling issues
- New styling options
- Where can you get it?
- How did we create it?
- Walk through/Demo



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Styling Topography Layer

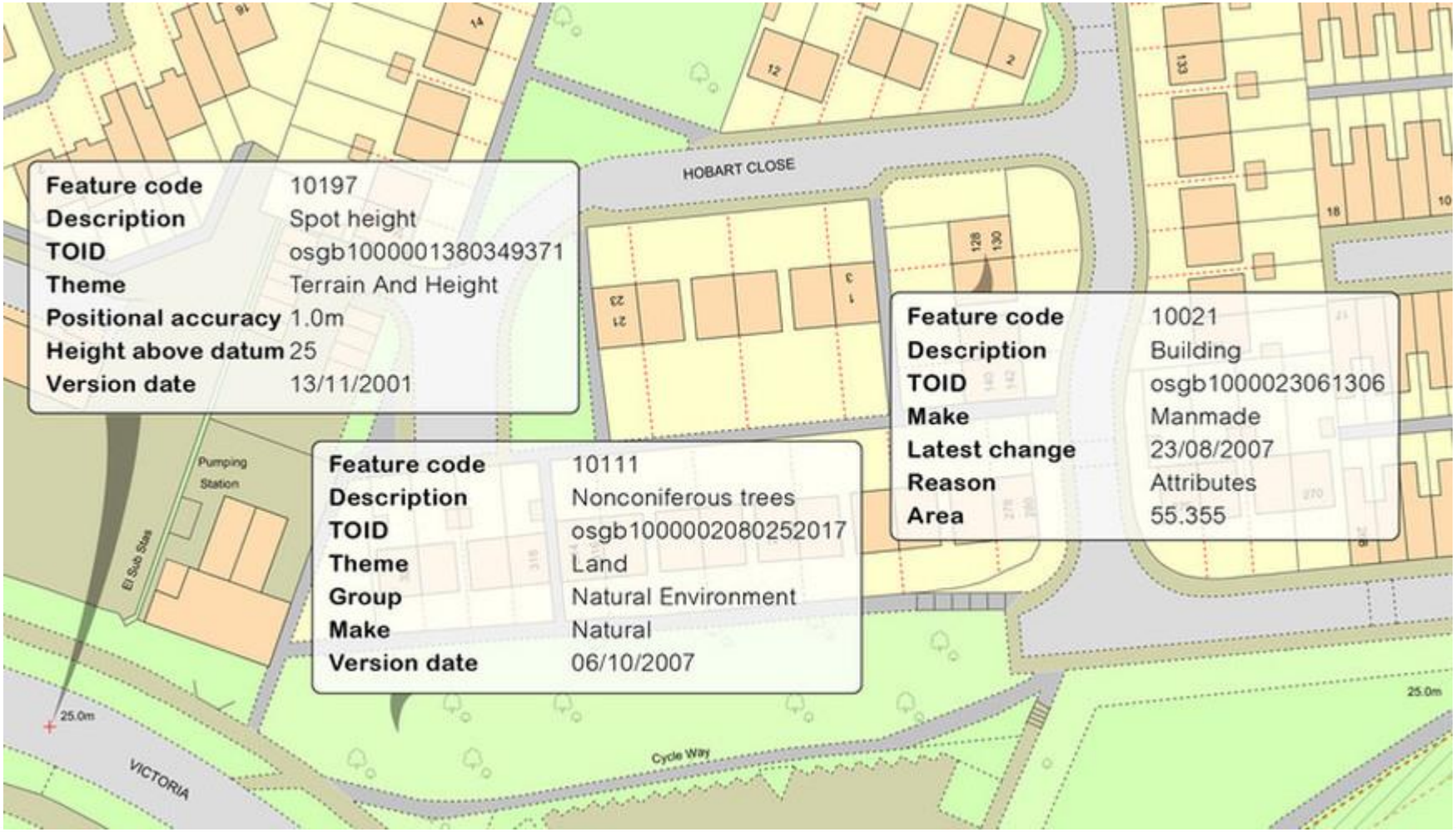
There are a number of ways to style OS MasterMap Topography Layer:

1. **Style using the featurecode** – this is the easiest method however, it provides a limited number of styles and the same featurecode can be used for multiple feature types.
2. **Style using featurecode and make** – This is the current method used by the open source stylesheets on the UK QGIS Github page and distinguishes between features that share the same featurecode but have different values for 'make'. A good example of this is Rail:
    1. Featurecode = 10167 AND make = 'Manmade'
    2. Featurecode = 10167 AND make = 'Natural'
3. **Style using three of the descriptive attributes (Descriptive Group, Descriptive Term and Make)** – this method is outlined in the Technical Specification Chapter 10 – Cartographic Styling.

Styling Topography Layer

4. **Style using four of the descriptive attributes (Descriptive Group, Descriptive Term, Make and Physical Presence)** – this provides access to the richness of data that is in OS MasterMap Topography Layer but is the most difficult to implement.
5. **Style using a custom style attribute** – some of our Partners implemented the creation of a new style attribute during the loading/processing of OS MasterMap Topography Layer. This gives features a discrete attribute to style on which is much more efficient.
6. **Style using OS discrete styling attribute 'os_cat'** – several years ago we released Style Layer Descriptors (SLDs) for OS MasterMap Topography Layer which used a discrete style attribute we called 'os_cat'. This attribute was a textual description, for example 'buildingFill' and is created by post-processing the data.

Styling issues



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Styling issues

- It is difficult for Ordnance Survey to provide different stylesheets for all the possible variations:

  for example ‘descriptiveGroup’ can become ‘descgroup’ or ‘desc_group’ or ‘DESCRIPTIVEGROUP’

- Customers and Partners are spending considerable amount of time creating their own solutions and stylesheets

- Large stylesheets impact performance in Web Map Services (WMS) and desktop GIS display

New styling options

Ordnance Survey are releasing:

- OS MasterMap
  Styling Guide
- Stylesheets in
  - ESRI LYR
  - QGIS QML
  - OGC SLD
- SQL scripts
  - PostGIS
  - Oracle
  - SQLServer

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Where can you get it?

- All code, documentation and stylesheets maintained and version controlled using OS GitHub https://github.com/OrdnanceSurvey
- Version 7 released with July webinars
- Version 9 released before launch of Topography Layer upgrade

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How did we create it?

- Initially queried a national GB set of OS MasterMap Topography Layer

Total Count	Feature Code	Descriptive Group	Descriptive Term	Make	Physical Presence
148127807	10046	General Feature			Obstructing
64612785	10019	Building	Outline	Manmade	Obstructing
29515251	10046	General Feature			Edge / Limit

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How did we create it?

Total Count	Feature Code	Descriptive Group	Descriptive Term	Make	Physical Presence	Description
148127807	10046	General Feature			Obstructing	Default Line
64612785	10019	Building	Outline	Manmade	Obstructing	Building Outline Line
29515251	10046	General Feature			Edge / Limit	Edge Line

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How did we create it?

Total Count	Feature Code	Descriptive Group	Descriptive Term	Make	Physical Presence	Description	Code
148127807	10046	General Feature			Obstructing	Default Line	1
64612785	10019	Building	Outline	Manmade	Obstructing	Building Outline Line	2
29515251	10046	General Feature			Edge / Limit	Edge Line	3

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Walk through

Query - osdata on postgres@localhost:5432 *

File Edit Query Favourites Macros View Help

osdata on postgres@localhost:5432

SQL Editor | Graphical Query Builder

Previous queries

```
DROP TABLE IF EXISTS osmm.topo_area_style ;
COMMIT;

CREATE TABLE osmm.topo_area_style AS SELECT
a.*,
CASE
        WHEN descriptivegroup @> '{Building}' AND descriptiveterm IS NULL THEN 'Building Fill'
        WHEN descriptivegroup @> '{"General Surface"}' AND descriptiveterm = '{"Multi Surface"}' THEN 'Multi Surface Fill'
        WHEN descriptivegroup @> '{"General Surface"}' AND descriptiveterm IS NULL AND make = 'Natural' THEN 'Natural Fill'
        WHEN descriptivegroup @> '{"Road Or Track"}' AND descriptiveterm IS NULL AND make = 'Manmade' THEN 'Road Or Track Fill'
        WHEN descriptivegroup @> '{"General Surface"}' AND descriptiveterm IS NULL AND make = 'Manmade' OR make = 'Unknown' THEN 'Manmade Fill'
        WHEN descriptivegroup @> '{Roadside}' AND make = 'Natural' THEN 'Roadside Natural Fill'
        WHEN descriptivegroup @> '{Roadside}' AND make = 'Manmade' OR descriptivegroup @> '{Roadside}' AND make = 'Unknown' THEN 'Roadside Manmade Fill'
        WHEN descriptivegroup @> '{"Inland Water"}' AND descriptiveterm IS NULL THEN 'Inland Water Fill'
        WHEN descriptivegroup @> '{Path}' AND descriptiveterm IS NULL THEN 'Path Fill'
        WHEN descriptivegroup @> '{"Road Or Track"}' AND descriptiveterm = '{Track}' THEN 'Track Fill'
        WHEN descriptiveterm = '{Slope}' THEN 'Slope Fill'
        WHEN descriptivegroup @> '{Structure}' AND descriptiveterm IS NULL THEN 'Structure Fill'
        WHEN descriptiveterm = '{Cliff}' THEN 'Cliff Fill'
        WHEN descriptiveterm = '{Step}' THEN 'Step Fill'
        WHEN descriptiveterm = '{Foreshore}' THEN 'Foreshore Fill'
        WHEN descriptivegroup @> '{"Road Or Track"}' AND descriptiveterm = '{"Traffic Calming"}' THEN 'Traffic Calming Fill'
        WHEN descriptivegroup = '{Glasshouse}' THEN 'Glasshouse Fill'
        WHEN descriptivegroup @> '{Rail}' AND descriptiveterm IS NULL AND make = 'Natural' THEN 'Rail Natural Fill'
        WHEN descriptiveterm = '{Pylon}' THEN 'Pylon Fill'
```

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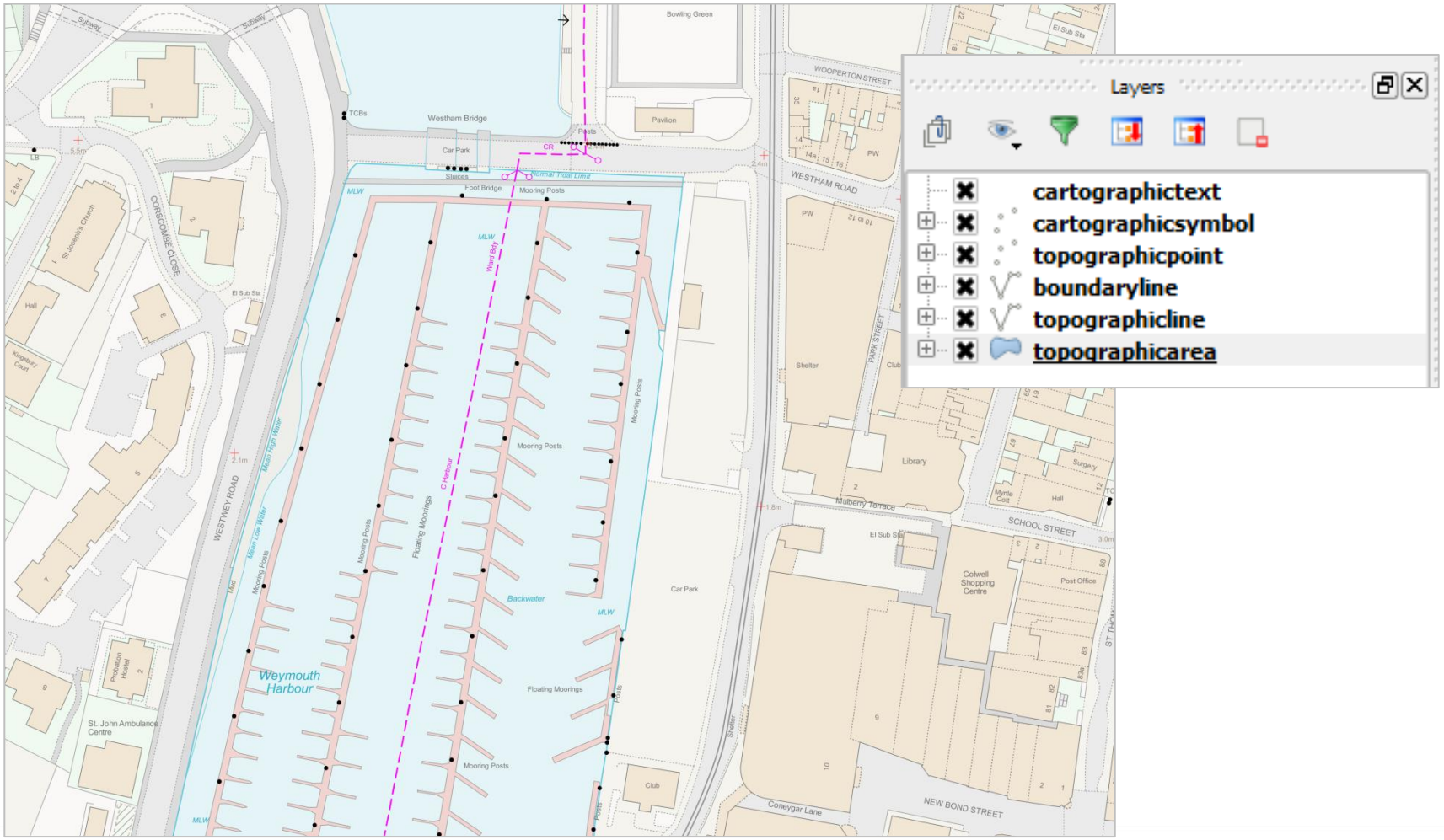
Walk through



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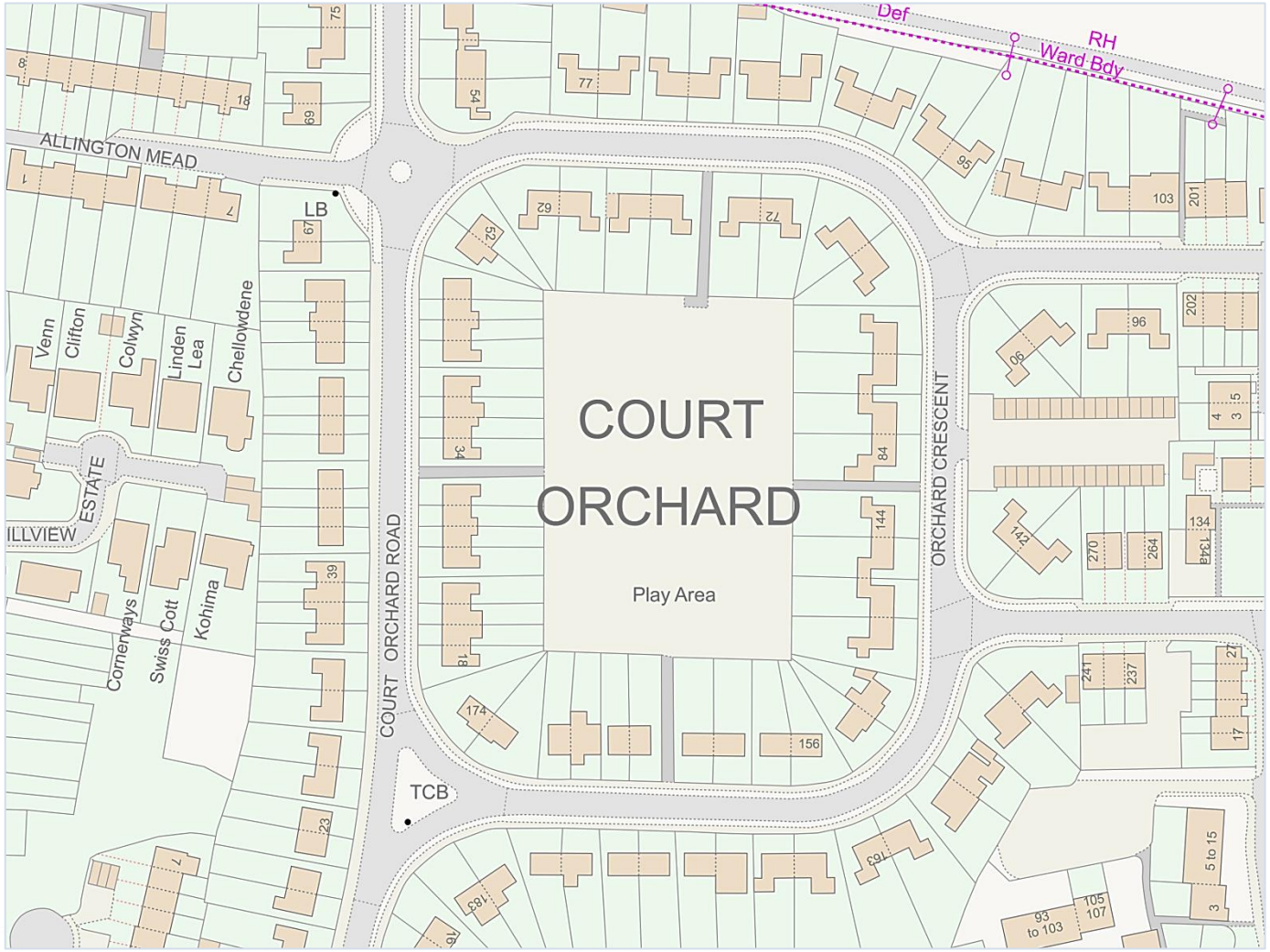
Walk through



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Walk through

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Walk through

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Summary

- A user guide, SQL scripts for PostGIS, Oracle and SQL Server
- Stylesheets for LYR, QML and SLD
- All code, documentation and stylesheets maintained and version controlled using OS GitHub
- Version 7 released with July webinars
- Version 9 released before launch of Topography Layer upgrade
- On-going support from Consultancy & Technical Services team.

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