

Digital technologies to enable a step change in the modelling and collaborative development of national-scale flood mapping

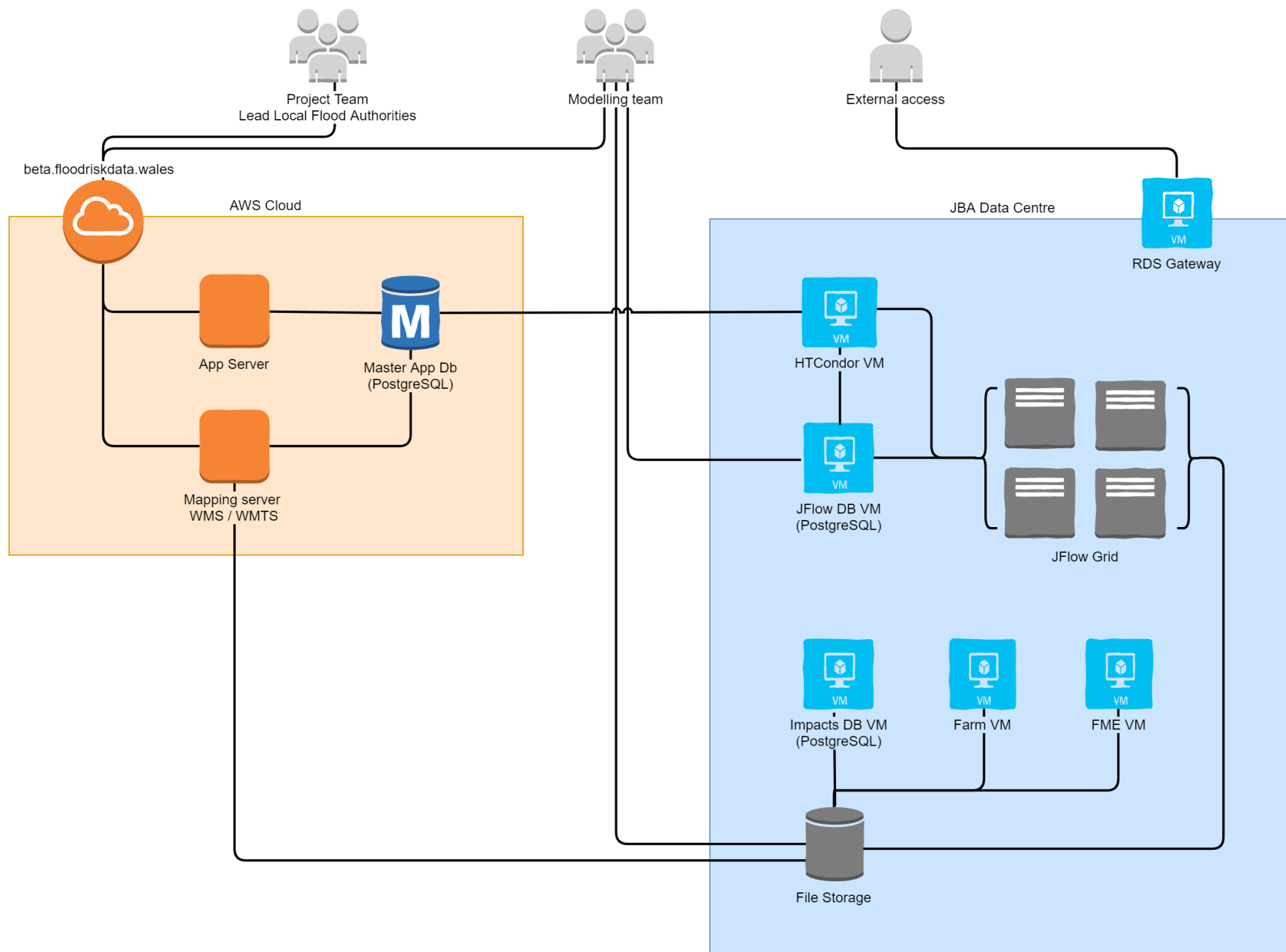
Robert Berry

Head of Technology

robert.berry@jbaconsulting.com

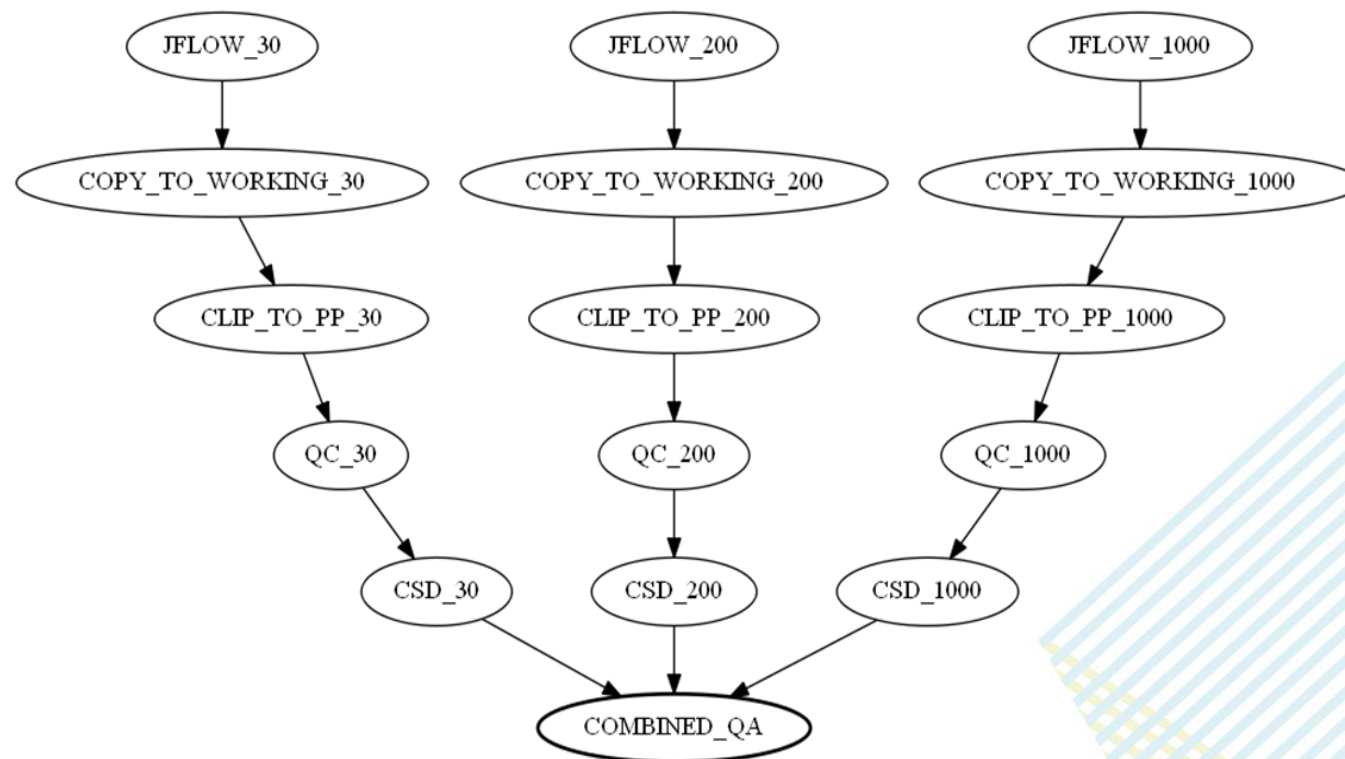
[@robberry](#)

[@jbaconsulting](#)




Rapid model processing

- HTCondor workload management system
- Manages 350(ish) GPUs
- Processes $\approx 500,000$ models per month
- Flexibility through directed acyclic graph (DAG) jobs



Communicating with partners

- Results presented to partners through web and geospatial services
- News and dashboard of changes

**Cyfoeth Naturiol Cymru**
Natural Resources Wales

BETA This is a new service – your [feedback](#) will help us to improve it.

Home


Home > My Account >

My Account

Details

Name	Rob Berry
Email	robert.berry@jbaconsulting.com
Organisation	JBA Consulting
Teams	n/a
Admin	Yes
WMS URL	https://beta.floodriskdata.wales/maps/wms/9a2eeb60af32
WMS Key	9a2eeb60af32

[Change Password](#) [Edit Details](#) [Reset WMS Key](#)

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Natural Resources Wales

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Home

Home

Wales National Flood Risk Assessment

News

Updated Hazard data within the review website
Final 'Version 3' data is now available within the review website for all sources of flooding (Fluvial, Tidal and Pluvial). Thank you to everyone who has contributed during the review process and helped us reach this milestone.

Please take this opportunity to look at the model results and provide feedback through the review website. Although we will be unable to incorporate this feedback within the remaining phases of this project it will be used to inform future maintenance and improvement activities.

Please do not hesitate to contact the Project team directly with any enquiries.

Simon James | 07/12/2018 15:37

My Organisation's Actions

Search
ID, Type, For Review By...

Area Filter
Show All

Originator Filter
Show All






Filter Results

Start Date
14/05/2018

End Date
14/06/2019

Clear Filter

Show 5 entries

Date	ID	Type	For Review By	Map View
18 Jan, 13:36	209830	Note	JBA Consulting	
15 Jan, 15:06	209829	Note	JBA Consulting	
15 Jan, 14:59	209828	Note	JBA Consulting	
15 Jan, 14:52	209827	Note	JBA Consulting	
15 Jan, 14:42	209826	Note	JBA Consulting	

Showing 1 to 5 of 18 entries

Previous 1 2 3 4 Next

Guidance and Reports

[Quick Start Guidance](#)

[Detailed Guidance](#)

[Method Statement](#)

Review Programme

[Review Programme](#)

Contact Us

[Contact Us](#)



Input Data

- ☒ All Model Implementation Layers
- ☒ All Supplied Information Layers
- ☐ Model Set-Up Updates
- ☒ Notes
- ☐ Culverts
- ☐ DTM Edits
- ☐ Storage Areas
- ☐ Pumping Stations
- ☐ SuDS Feature
- ☐ National Receptor Database
- ☐ Defended Areas
- ☐ Known Flooded Areas

Fluvial Flood Maps

Tidal Flood Maps

Pluvial Flood Maps

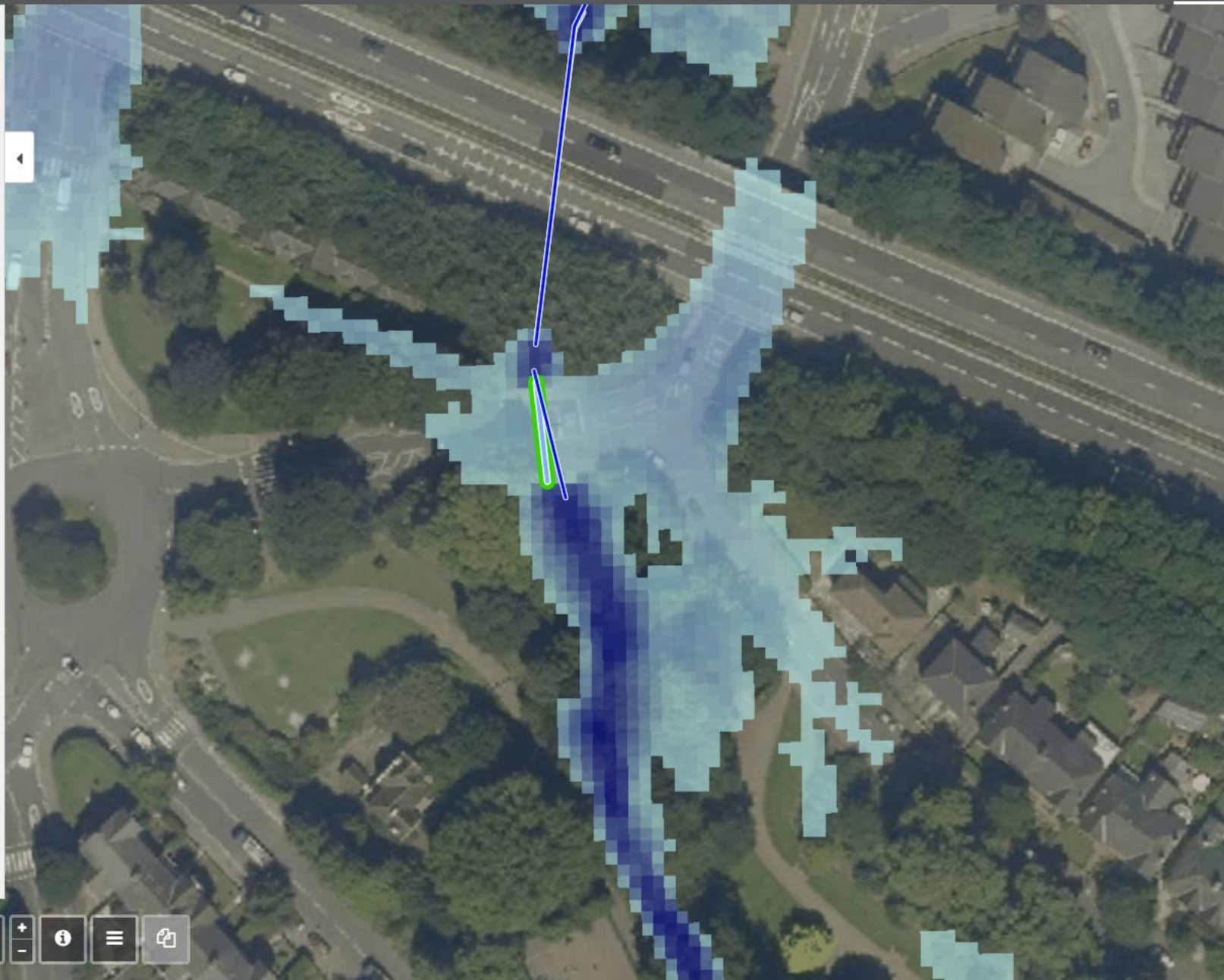
Community Risk Register

External GIS Data

Context Layers

Background Mapping

- ☐ DTM
- ☒ Aerial Photography
- ☐ Base Mapping
- ☐ None



Planning

Maximum Discharge (m³/s)

Inlet Invert Elevation (mAOD)

Outlet Invert Elevation (mAOD)

Data Source [Review Website](#)

Further Description 2007 SE FRA Survey Data

Location [Google Maps](#)

[Delete](#) [Edit Location](#) [Edit Record](#)

Status

For Review By JBA Consulting

Actioned Yes

[Mark as Not Actioned](#) [Edit Status](#)

Comments

Comment Text...

[Add Comment](#)

Culvert location and parameters modified in JFlow database. Dimensions supplied by web reviewer.

Richard Macpherson-Barrett (JBA Consulting)
13/06/2018 13:51

[Delete](#)

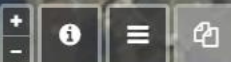
Type 'R - Rectangular Conduit' culvert structure added.
Width (m) changed to '7.14'
Height (m) changed to '0.77'
Further Description changed to '2007 SE FRA Survey Data'

Christopher Powell (Natural Resources Wales)
24/05/2018 15:07

[Delete](#)

318535, 178791
Scale: 1:1,000

20 m





Input Data

☒ All Model Implementation Layers

☐ All Supplied Information Layers

☐ Model Set-Up Updates

☒ Notes

Transparency: 40 %

☒ Positive

☒ Neutral

☒ Negative

☒ Actioned

☒ Unactioned

☐ Culverts

☒ Model Implementation

☒ Culvert

☐ Supplied Information

☐ Culvert

☐ Archived Information

☐ Culvert

☐ DTM Edits

☐ Storage Areas

☐ Pumping Stations

☐ SuDS Feature

☐ National Receptor Database

☐ Defended Areas

☐ Known Flooded Areas

Fluvial Flood Maps

Tidal Flood Maps

Pluvial Flood Maps

Community Risk Register

External GIS Data

Context Layers

256353, 369965

Scale: 1:4,000

50 m



Note Details



ID 206445

Note Text Good Frequency Estimate

Further Details Trash screen on inlet. Historic debris/silt issues limiting inlet capacity

Flood Source (If Relevant)

Location [Google Maps](#)

Delete

Edit Location

Edit Record

Status

For Review By

Actioned Yes

Mark as Not Actioned

Edit Status

Comments

Comment Text...

Add Comment

Note actioned.

Neil Hunter (JBA Consulting)
03/07/2018 11:41

Delete

Thank you for the positive feedback.

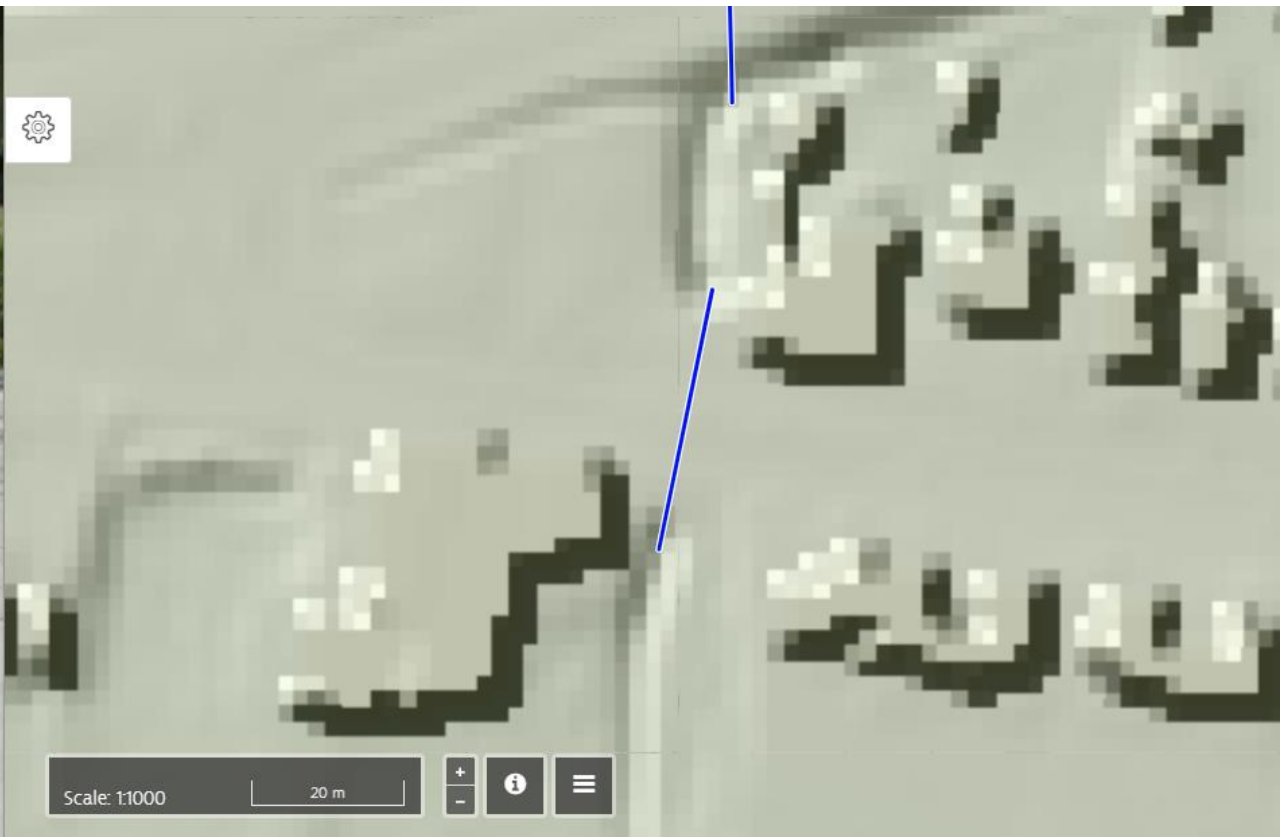
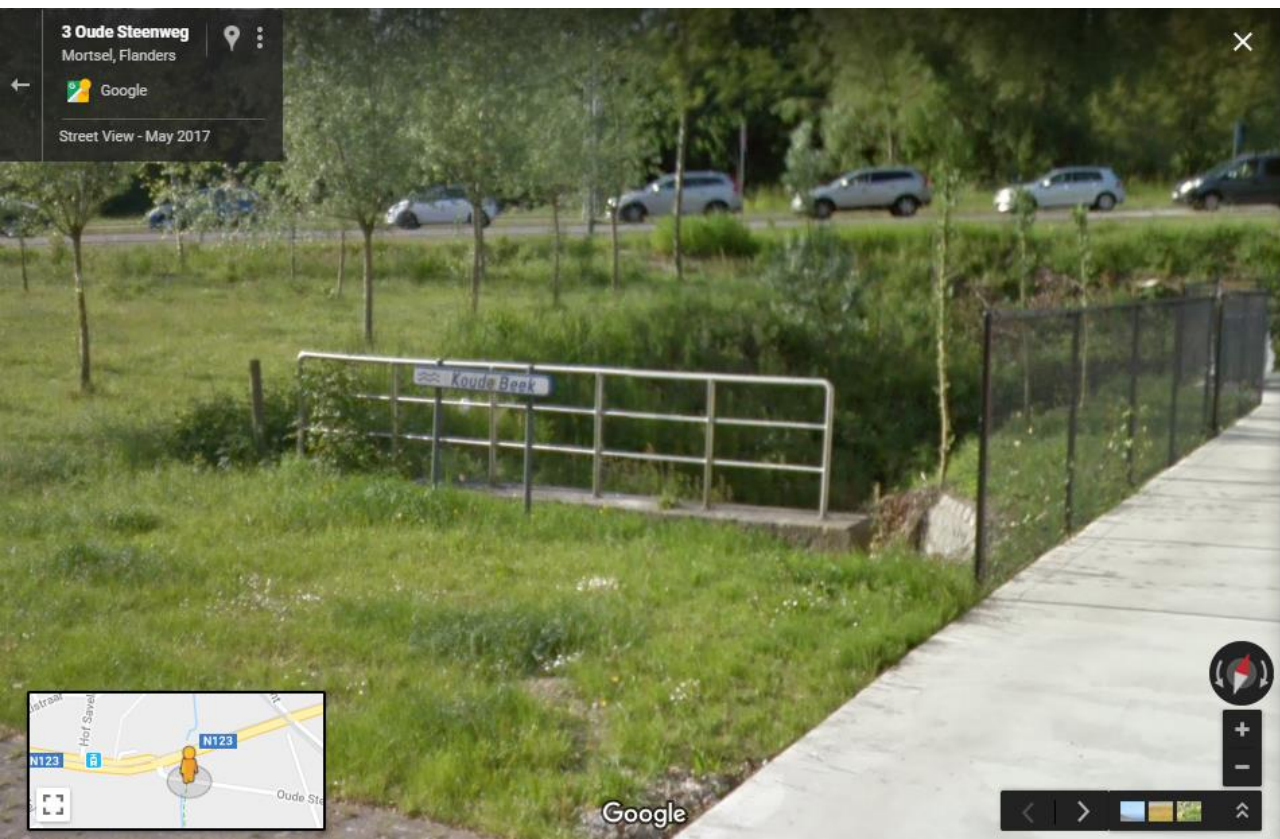
Neil Hunter (JBA Consulting)
03/07/2018 11:41

Delete

'Positive' note added.
Note Text changed to 'Good Frequency

Next steps

- Machine learning (ML) for detecting physical features
- ML for initial model QA (flags and re-runs)



Thank you

Contact me for more information

Robert Berry

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@robberry

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