

NYMNPA

05/03/2019

From: James Cox
Sent: 05 March 2019 16:01
To: Rob Smith
Cc: Robert Staniland
Subject: NYM/2019/0041/CVC - Woodsmith Mine Phase 9 - Response to LLFA Comments [NLP-DMS.FID262297]

Rob,

In response to the comments received from the Local Lead Flood Authority (dated 20.02.19), please see below the updated drainage calculations for Phase 9.

Kind regards,

James Cox
Associate Director
Lichfields, 3rd Floor, 15 St Paul's Street, Leeds LS1 2JG

lichfields.uk

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Think of the environment. Please avoid printing this email unnecessarily.

From: Julia Beaumont
Sent: 05 March 2019 15:11
To: James Cox
Cc: Chris Williams
Subject: RE: Woodsmith Phase 9 - Comments from LLFA [NLP-DMS.FID262297]

Hi James,

Below is the response to LLFA:

Compliance with Conditions 60 and 79 was demonstrated in the previous Surface Water Drainage Scheme detailed in the report 40-ARI-WS-7100-CI-RP-0100 accompanying the Phase 7 submission. The gross area drained in Phase 9 has not increased in comparison to Phase 7, as the footprint of the platform and access road extensions were already included in the Phase 7 drainage model as permeable (undisturbed) ground (30% impermeable). The permeability of the additional works areas has been updated in the MicroDrainage model to reflect the change of area to hardstanding (100% impermeable). The increase in the impermeable area results in a small increase in the discharge rate from the site.

The results from the modelling are presented in the table below.

	Phase 7 Drainage Scheme	Phase 9 Drainage Scheme
Gross Drained Area (Southern and Northern Catchments Combined)	31.9 hectares	31.9 hectares
Greenfield Runoff Rate	$6.5 \times 31.9 = 207.7$ l/s	$6.5 \times 31.9 = 207.7$ l/s
Maximum Modelled Rate of Discharge	101.5 l/s	120.4 l/s


The maximum discharge rate from the Phase 9 works in the 1-in-20-year critical design storm has increased to 120.4 l/s. However, the updated discharge rate is still considerably below the permitted greenfield runoff rate of 207.7 l/s for the gross drained area, and therefore the Phase 9 drainage satisfies the Condition 79 clause for runoff attenuation on site during construction. The remainder of the conditions are satisfied in the same way as in the Phase 7 scheme, as the details for the scheme remain unchanged. Attached are the updated modelling results for Phase 9.

Kind regards,

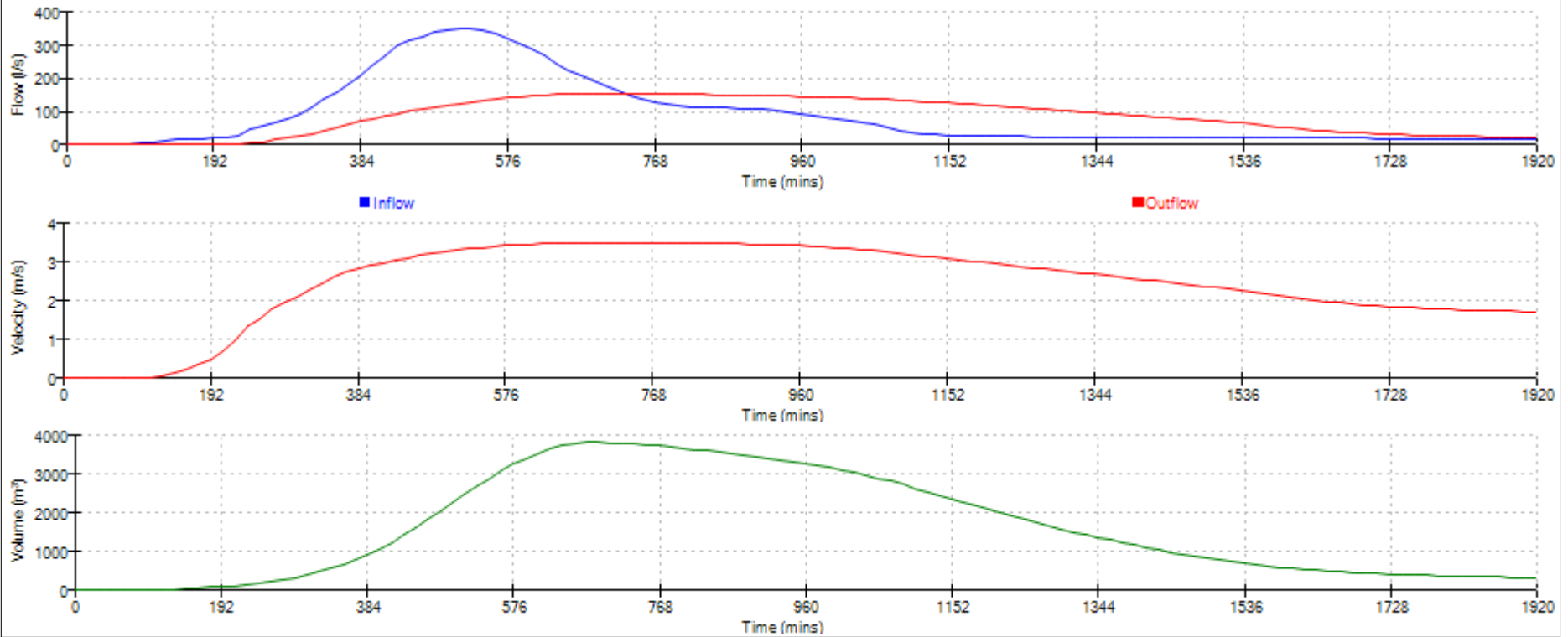
Julia Beaumont
Engineer

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XP Solutions		Network 2018.1.1

Graphs for Pipe PH3-N-1.037 US/MH PH3-N-1013 (Combined Networks)
960 minute 20 year Winter I+0%
Status: FLOOD RISK



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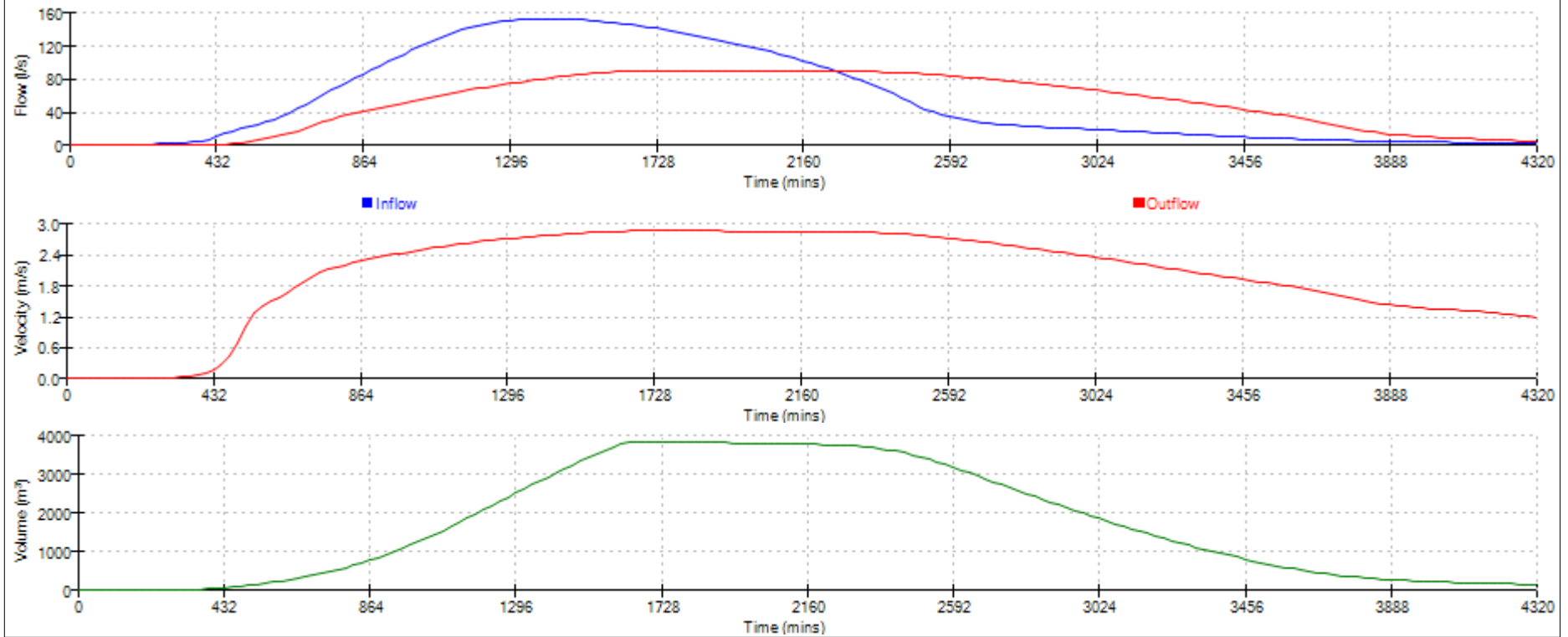
Checked by


XP Solutions

Network 2018.1.1

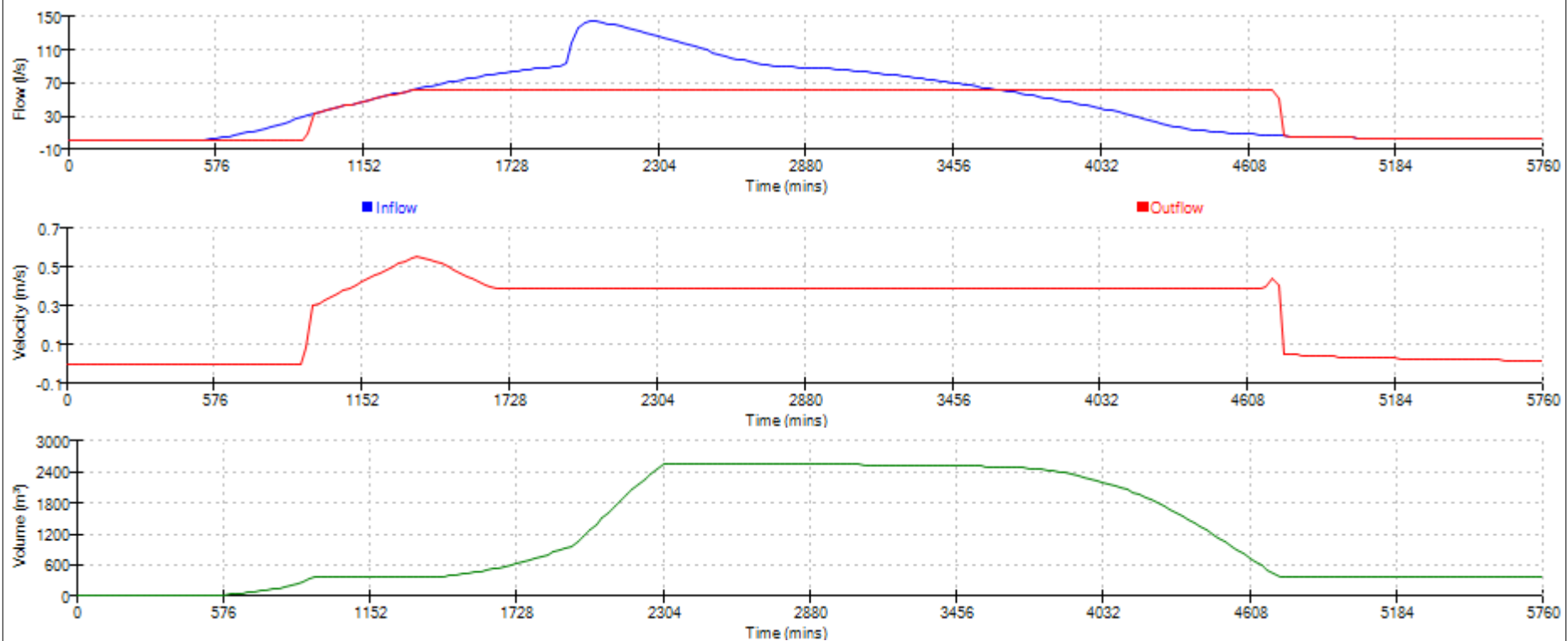



Graphs for Pipe PH3-N-1.038 US/MH PH3-N-1014 (Combined Networks)
2160 minute 20 year Winter I+0%
Status: FLOOD RISK



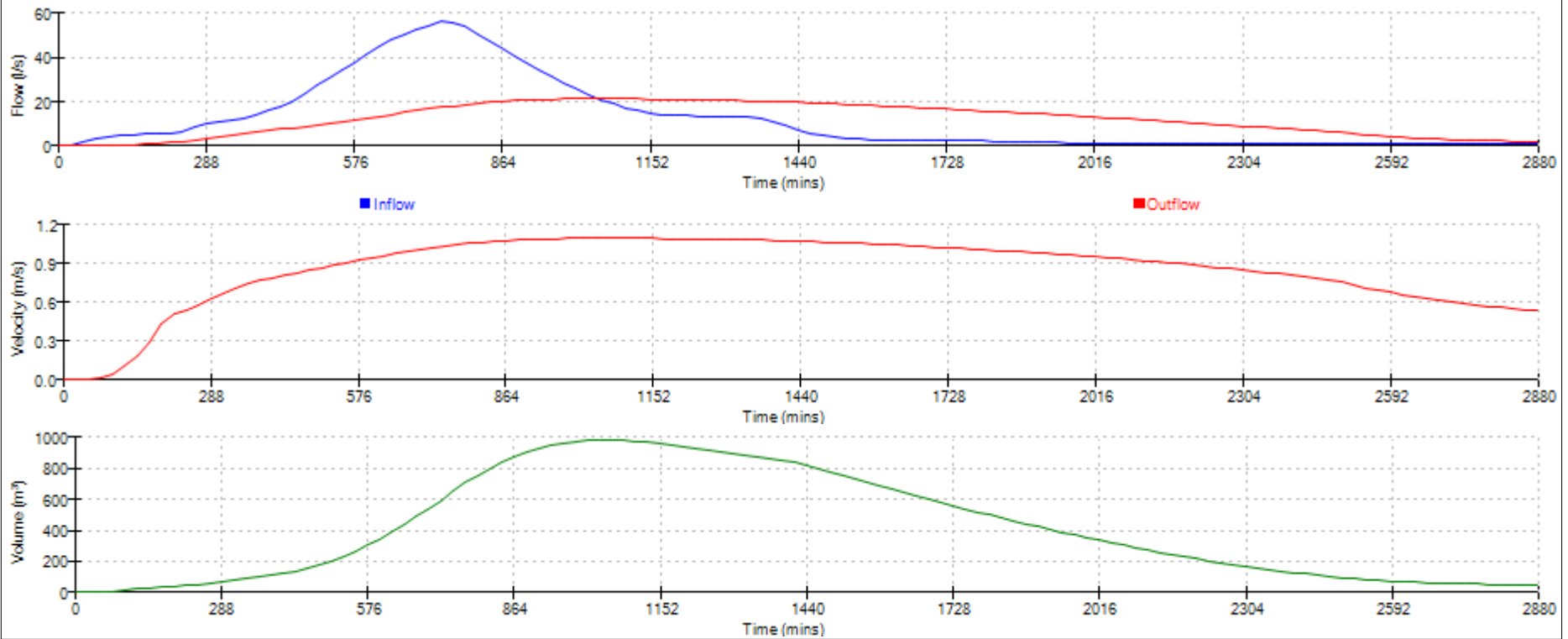
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Graphs for Pipe PH3-N-1.039 US/MH PH3-N-1015 (Combined Networks)
2880 minute 20 year Winter I+0%
Status: FLOOD RISK



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Graphs for Pipe PH3-N-19.006 US/MH PH3-N-37 (Combined Networks)
1440 minute 20 year Winter I+0%
Status: OK*



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Network 2018.1.1

Graphs for Pipe PH3-N-1.040 US/MH PH3-N-1016 (Combined Networks)
2880 minute 20 year Winter I+0%
Status: FLOOD RISK*

