A83 Rest and be Thankful

Stakeholder Update

Location: MS Teams
18 November 2020
14:00 – 15:00
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Presentation Summary

• Overview of Recent Events
• Ongoing Works on Hillside
• Monitoring and Decision Making
• Landslide Comparisons
• Communications
• Next steps
• Q & A
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Incident on 4 August 2020 (10,000 tonne event)

- Impacted the A83 and Old Military Road
- 10,000 Tonne event

- Channel 3a
- Channel 3b
- Channel 3a Pit
- Lower slope erosion
- A83 inundated
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Incident on 4 August 2020

A83 carriageway inundated and undermined

Construction of new retaining wall/culvert

Significant channel debris

Temporary pit and roadside mitigation
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Landslide Recovery Effort – August 2020

A83 re-opened under single lane operation on 7 September.

Enhanced earthwork bund enhanced above Old Military Road.
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Incident on 13 September 2020

5,000 Tonne event impacted A83 and OMR
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Incident on 13 September 2020

- A83 inundated with material from newly formed Channel 3b.
- Safety barrier and pedestrian guardrail provided some retention.
- New retaining wall supporting A83 withstood landslide event.
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Landslide Recovery Effort - September 2020

- Significant debris clearance undertaken.
- Limited remedial works required to road infrastructure assets.
- A83 re-opened under traffic signal control 24 September.
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Channel 3b Mitigation – Watercourse Diversion

- Machine helicoptered onto hill to return watercourse to original line.
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20 & 21 October 2020 Rainfall Event

- Yellow weather warning issued for 20 and 21 October.
- OMR local diversion implemented 19 October as proactive measure.
- 86mm of rainfall experienced in 48 hour period.
- OMR closed midnight 21 October due to overtopping and erosion of slope below A83.
- OMR re-opened on 22 October following inspection and remedial action.
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Incidents - 31 October 2020

- OMR diversion implemented 30 October in response to Yellow weather warning.
- OMR closed 31 October (AM) due to landslip events and surface water flow.
- 106mm of rainfall experienced in 48 hour period.
1200 Tonne event
Caught in debris net
2400 Tonne event
Caught in debris nets
Only soil slurry and surface water deposited on A83
River Croe overtopped and hillside surface water inundated OMR
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Landslide Recovery Effort - November 2020

- OMR re-opened to traffic 2 November.
- Rock fall barriers emptied and debris clearance undertaken.
- Rockfall barrier repairs required for A83 to become operation.
- A83 readied for re-opening 16 November.
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Further Mitigation Measures in Channel 3b

- Impacted the A83 and Old Military Road
- 10,000 Tonne event
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Further Mitigation Measures in Channel 3b
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Further Mitigation Measures in Channel 3b
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Monitoring

- Geotechnical Inspections
- Spotters
- On-site weather monitoring
- Hillside movement monitoring
- Inspection of in-channel debris
- Lower slope and culvert inspections
- Time-lapse photography
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Monitoring

Upper Slope above Channel 3b

View from Channel 3b to upper slope

Time-lapse Imagery - Movement Vectors
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Decision Making

• Transport Scotland and BEAR Scotland engage on a daily basis.

• Expert advice taken from geotechnical and meteorological specialists, Police Scotland and Traffic Scotland.

• Inputs support pre-emptive planning/decision making for road operation.

• Two calls per day held when weather and on-site monitoring poses concern.

• The safety of road users and operatives is paramount in decision making.
2020 Events

- 3 major landslides totalling 20,000 Tonnes of material.
- Considerable depth of soil present within Channel 3b.
- Channel 3b contains significant residual material.
- Saturation of scarred area maintained by wet weather.
- Slope degrading with continuing material movement.

Risk to A83 and OMR generated by weather and hillside conditions.

Pre-2020 Events

- Maximum landslip event induced 2500 Tonnes of material.
- 2007 to Jan 2020 landslide cumulative total <10,000 Tonnes.
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- **Stakeholder Updates**
  Issued daily or as required
  (142 issued to 17 November 2020)

- **Twitter Updates**
  BEAR Scotland (@NWTrunkRoads)

- **Traffic Scotland**
  (www.trafficscotland.org)
  Website or app and Twitter (@traffic Scotland)

- **Variable Message Signs**

- **Press releases, media including:**
  Radio, TV, local & national newspapers
  (82 issued to 17 November 2020)
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Next Steps

• In-Channel 3b barrier (end Nov / early Dec subject to weather).
• Channel 3b catch-pit construction.
• Repair Channel 3a and 3b lower slopes above OMR (Spring 2021)
• Continue planned construction of Channel 1 catch-pit and debris fence.
• Ongoing monitoring of hillside conditions and mitigation.
• Investigate and design further mitigation works.
• Assess condition of the OMR and improve as required.
• Hillside tree planting – Autumn 2021 (Deer fence Spring 2021).
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Thank you

Q & A
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Glen Croe Forestry Commission Track
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