

## **Leeson Road. Frequently asked questions.**

Here are responses to some of the questions most often asked about the Bonchurch landslip and how it affects access to Ventnor. Please email any questions you have to [coastal.recovery@iow.gov.uk](mailto:coastal.recovery@iow.gov.uk)

### **What is the current position at Leeson Road?**

The upper section of Leeson Road has remained closed since a catastrophic landslip in December 2023 when 16 hectares – some 14million cubic metres of land – was displaced in what was one of the largest landslides recorded on the South Coast of England.

There is no single cause attributed to the failure, however the following factors are considered significant in contributing to the instability of the geology in the area:

- ‘Toe’ erosion to the base of the cliff which had provided support to the unstable land mass behind.
- Large quantities of winter rainfall which has continued to permeate the site coupled with the resulting excess groundwater levels

Two world renowned consultants in this field - Atkins and Jacobs – were engaged by Island Roads and the Isle of Wight Council to report on the causes of the landslip and to give initial advice on the dangers of further movement. We continue to take advice from both consultants, as well as experts in the field of geological monitoring, to help us plot a way forward.

In addition, we continue to monitor the area using visual inspections and also equipment which measures vertical movement of the road, this has been in place for several weeks and is providing us with information which is being analysed. Each week, more information is gathered in this regard that adds to the picture. Data from this will be added to that gathered from the more extensive and specialist systems that are being put in place (see below).

### **Is the road subject to any current movement?**

Our ongoing monitoring of various points along Leeson Road has observed some small vertical movement at isolated locations on Leeson Road, particularly those areas close to the rear scarp.

### **Why can't the road be open now?**

The safety of road users is – and always will be – the priority of Island Roads and the IW Council.

Both Atkins and Jacobs have advised that further specialist monitoring is required to inform a decision on when - and indeed if - the road can be re-opened. Only this data will enable us to understand the nature and pace of ongoing movement and anything happening deep below the surface and therefore calculate – as best as we are able - the risks of further failures to the area including Leeson Road.

### **What monitoring are you undertaking currently.**

We are currently undertaking weekly level monitoring of Leeson Road which is supplemented by visual inspection. This level survey is concentrated on 84 points along the most vulnerable section, directly behind the landslip area. We have also made – and continue to make – many ancillary visits to study and assess the site.

Furthermore, we have also installed survey points for use with 'total station' surveying equipment which uses an automated theodolite and a electronic distance measurement (EDM) to provide accurate measurements of horizontal and vertical movement.

### **What monitoring do you plan to undertake?**

Working with our consultants, we have developed a monitoring regime using an array of equipment that will help us further understand the factors behind the catastrophic failure of last December and the extent of ongoing movement both at Leeson Road and the wider area.

The array of equipment will include extensometers to measure and record any changes to visible cracking, tiltmeters to record rotational movement at given locations and also specialist global navigation satellite system (GNSS) sensors to provide remote monitoring of horizontal and vertical movement of land.

We also plan to take several boreholes, each 100 metres in depth, to study the geological strata below ground levels and to help us further understand the state of the water table – a prime factor in ground movement - in this location. The scale of the rear scarp failure is very significant and we are particularly cautious due to the possibility that large voids or fissures may be present below the chalk and sandstone layer immediately below the road.

Data captured from the various monitoring methods will be analysed alongside existing and historic knowledge to form a better understanding of the landslip failure mode which will hopefully allow better forecasting of future movement as the landslip migrates further towards the chalk that forms Bonchurch Downs.

### **Why has it taken this time to install the monitoring equipment?**

While monitoring is already underway, we require more specialist information on which to base future decisions. Therefore, we have to be sure that the future monitoring regime gives us the very best, most accurate, information. This has involved developing a plan which we are confident deploys the right equipment at the right location. That plan is now in place and the necessary equipment is due to be installed in April subject to there being no further major movement, the weather being suitable and the necessary consents from private landowners being received.

### **Why can't the road partially open – perhaps with single lane under traffic lights or to cyclists and pedestrians only?**

All the advice from our consultants is that more information is needed before we can properly assess the risks around re-opening the road. We are not prepared to expose road users to real risk by re-opening the road without the necessary data being available to support such a decision.

It is also important to remember that the risk of further collapse is down to the wider geological movement in the area – not necessarily the weight of any traffic using it. In that respect, it does not matter if the road was fully open or fully closed: the risk, and subsequent need for a wider review, remains the same. This failure area has acted differently to other landslips in that it happened very quickly and in a vertical direction. Landslips experienced previously in the Undercliff for instance are rotational failures that show a progressive slip, rather than the sudden downward drop experienced at Bonchurch.

### **How long will it take before a decision is made on re-opening Leeson Road.**

As much as we'd like to, we are simply unable to put a timeframe on this. Any decision will be based on the data and expert guidance that we receive and even if data indicates that movement is very slow or steady, a future management plan will be required based on this data.

Geological movement does not occur at pre-announced times and achieving trends or patterns in behaviour often takes many years and is influenced by rainfall levels. It is of note that February and into March, we have continued to see very high levels of rainfall, which needs to be taken into account given that groundwater is a trigger for continued movement.

**Can you guarantee other routes in and out of Ventnor will remain open while Leeson Road is closed.**

We are monitoring the Graben (a known geological fault) at Newport Road very closely as we always do. We have intervened in this location several times since the beginning of the highways PFI project and will continue to do so as necessary. We also plan to take action to seal recent cracking but this is best done in dry conditions when the substructure has had the chance to de-water and the sealant itself is more effectively laid.

At the same time, Southern Water also has drainage issues at Newport Road which need to be addressed. So far, we have liaised with Southern Water to limit work while Leeson Road is closed. However should the need for these works become urgent (in order to maintain their infrastructure) then we will have to consider how these are best managed given the wider traffic issues. We are also liaising with Southern Water regarding works required to rectify the problems in Pier Street that are currently being managed. Again, we are seeking the best (or least problematic) timing for such works.

With regard to Island Roads works, if these can be rescheduled to later in the year this has been done and will continue to be done. Each piece of work has to be judged on its merits and urgency. For instance, due to the need to keep traffic moving through Wroxall. Isle of Wight Council and Island Roads have already postponed works on St John's Road until later in the year.