Non-Bitumen Coated Roofing Membranes (NBCRMs) steering group meeting discussion outcomes from 29th June, 5th August & 8th Sept. 2021

Attending some or all of these meetings;

- Carol Williams (Bat Conservation Trust; BCT) [CW]
- Jo Ferguson (BCT) [JF]
- Emmanuel Essah (University of Reading) [EE]
- Stephen Russell (University of Leeds) [SR]
- Kat Walsh (Natural England) [KW]
- Sam Dyer (Natural Resources Wales) [SD]
- Rob Raynor (Nature Scot) [RR]
- Stacey Waring (bat ecologist) [SW]

CW welcomed and thanked SW for attending steering group 29th June meeting to raise her concerns and present the evidence in relation to TLX's "Bat safe" NBCRMs and based on her 2013 / 14 research done at the Isle of Wight (IoW) bat hospital with TLX to develop a membrane safe for use where there are bats.

CW started by outlining the purpose of the steering group and invited SW again to join the steering group. One role of the steering group is to handle communications together in an efficient and collaborative manner. Another aim is that the steering group brings together key parties on this cross sectoral technical matter to address the issues and ensure the outcomes are independent and long-standing via a route such as a British Standard. On that basis it is most welcome that Stacey is now in a position to be part of the steering group. CW urged SW to come to the steering group with enquiries and any concerns in future so that SW isn't handling these on her own, to alleviate that pressure on her and ensure our messaging is one that represent all of the members of the steering group. KW wanted it noted that although Rob Raynor (Nature Scot) was unable to attend he works closely with her and SD and is kept informed to ensure all SNCO's input in covered.

SW was then asked to take the floor to outline her concerns, from the testing work done at IoW that SW has sent to TLX in the past (not yet shared but are saved on her Google Drive). SW's communications with TLX raised the following main issue in relation to having mesh over the membrane to prevent snagging. The method of applying the mesh to the membrane by use of glue was insufficient and so it peeled off easily, thus allowing droppings to accumulate and bats to get behind into the resultant pockets. This may also mean when it is being installed, if it needs to be cut to fit, it could be cut in a way that allowed the mesh to become loose from the membrane to which it was adhered. The last communication SW had with TLX was in 2016.

SR advised that the the current TLX Batsafe membrane consisted of a multilayer laminated structure. SW also raised the issue that she believed the testing methodology did not allow for bats getting their claws in under the mesh to the membrane through the gaps in the mesh. SR had checked, and the Velcro could reach the membrane and the mesh held the snagging and projecting filament loop formation at bay.

SR made the point that the TLX "Bat safe" membrane, that has just passed the testing, may have undergone further technical development in the intervening years from the original membrane that SW has tested. The test is specifically designed only to measure snagging propensity and no other factors relating to bat safety.

SW raised concerns about the long term viability and flammable nature of the TLX membrane which had been reported to her. EE stressed that the BBA certification is what will dictate if a membrane is the correct standard to be used in roofs (allaying fears about flammability or degradation due to temperature – also raised by SW potential issues). This can be checked on the BBA website, which does not currently list the TLX "Bat safe" membrane.

Discussions on 5th Aug. and 8th Sept. saw the snagging propensity concerns from SW addressed which SW agreed. However concerns raised about the adhesion of the mesh to the membrane layers and the weight of bats the mesh could hold in a real world situation before parting from the membrane, were still outstanding from 29th June.

Alongside these, SW mentioned other important areas of concern raised in her thesis, that have been followed up in part in subsequent years by the steering group in a laboratory setting. Further work on these issues such breathability function, temperature and humidity changes, is now needed to shape this into guidance for industry.

The issues SW raised aligned well with the future focus of the steering group, to get these outstanding concerns studied in an applied setting but under the clear study of an academic institute.

Next steps

A list of frequently asked questions is being reviewed by the steering group based on enquiries received to steering group members, a follow up document will be produced if required.

The NBCRMs steering group has kept in touch with TLX to keep them in the loop with steering group discussions and will shortly be approaching them with next steps.

The steering group is also reviewing the issues raised on bitumen felt when there are high roost temperatures.

We are working as a steering group and with external input to take the necessary next steps to see concerns raised to the group addressed, until then please refer to SNCO websites for advice:

- Natural England: https://www.gov.uk/government/collections/bat-licences
- Natural Respources Wales: https://naturalresources.wales/permits-and-permissions/species-licensing/apply-for-a-protected-species-licence/bat-licences/?lang=en
- Nature Scot: https://www.nature.scot/professional-advice/protected-areas-and-species/protected-species/protected-species-z-guide/protected-species-bats