

Ann Braid,
Planning Officer
New Forest National Park Authority

'Friends of Latchmore'

2 September 2016

Dear Ann

This is to inform you that 'Friends of Latchmore' Object to the Proposed development 16/00571 at Latchmore Brook.

Please see below a detailed response which sets out the reasons why the proposed development **should be refused in its entirety.**

Note: Quoted text from the EIA or publications are in *Italics*

Summary

This Planning Application 16/00571 is for a major engineering development on a catchment scale which involves the total replacement and re-landscaping of the headwaters and floodplain of Latchmore Brook with 96,000 tonnes of hoggins and clay. If permitted, this will totally change the hydrology, ecology and stakeholder interests, with no credible evidence from the documents provided that this has any likelihood of success in meeting the stated objectives.

The Planning Statement and EIA fail on all of the "**New Forest National Park Local Development Framework Core Strategy and Development Management Policies DPD**" on the basis that:

A. There is no reliable evidence that the works proposed would be successful in achieving Paragraph 3.3 of the Planning Statement which states that :

" The wetland restoration works are seeking to restore the Brook to a more natural, meandering state (with a reduced gradient), reduce erosion of the stream banks and bed, reduce the rate of flows entering the main channels and prevent the drying out of the surrounding ground, specifically the mires."

The words "seeking to..." can only be an optimistic aspiration as there is no evidence presented in the EIA that these proposed works will achieve a more natural meandering state relevant to this Planning Application.

Planning Policy guidance states that:

"The lifetime of a non-residential development depends on the characteristics of that development. Planners should use their experience within their locality to assess how long they anticipate the development being present for. Developers would be expected to justify why they have adopted a given lifetime for the development, for example, when they are preparing a site-specific flood risk assessment. The impact of climate change needs to be taken into account in a realistic way and developers, the local planning authority and Environment Agency should discuss and agree what allowances are acceptable."

The intention to create 5 kms of meandering stream over its 7 km length is neither natural nor beneficial. The main cause of the flash flooding is the herring-bone drainage inside the inclosures that will remain untouched, and the Brook will 'naturally' seek its own solution to the unnatural construction forced upon it, involving significant sediment movements when flash floods continue to occur.

The extent of the work is disproportionate. The scale of the work and the disruption it will cause is massive by comparison to the original work done decades ago, and is totally disproportionate to any benefit which is claimed for it.

B. The EIA provides no material or substantive evidence that the restoration works will successfully restore the SSSI units within the Latchmore catchment back into 'favourable' condition.

Paragraph 3.4 includes :

"..... The restoration works are therefore being proposed to restore the certain SSSI units within the Latchmore catchment back into 'favourable condition'."

It neither states what needs to be improved, nor to what extent, nor what success would look like, nor whether this would be achievable in any reasonable timescale appropriate to this Planning Application. Indeed, it is admitted that the SSSI geological feature at Studley Wood will move from 'favourable' at present to permanently 'unfavourable' condition.

C. The baseline information provided in the EIA is totally inadequate as a means of assessing the potential effects on the site and downstream areas.

Examples include the following (not an exhaustive list) :

- the reliance on inadequate height information at the engineering scale;
- inadequate source data for the hydrological modelling;
- no spot flow monitoring during flood conditions;
- no field data monitoring of baseline erosion rates - e.g. unsubstantiated general statements on the impact of movement of nick-points are made to justify works;
- inadequate and unreliable species surveys;
- Inadequate and unreliable archaeological evidence;
- recreation and leisure survey limited to a list of uses only , without obtaining user views on the impact of the proposed works as input to the EIA. (To leave it to the final consultation stage means that it has not been considered in the EIA itself.)

Data is an important resource and may be costly in time and effort to obtain. The Scoping Report highlighted the very limited surveys planned in preparation for the EIA, and this was commented on by FoL in its response to the NFNPA. The publication of the EIA has shown that there has been no material attempt to expand the data collected despite the extension of the timetable by almost a year.

The EIA addresses the proposals in a peculiar way, dispersing topics through the framework. This FoL response is presented by process, species or location in the main text below, bringing together some of the topics from the various sources in the EIA which cause the most concern. These are not exhaustive, but illustrate why the EIA is unacceptable in assessing the Planning Application as presented.

The implications for the hydrology and the proposed changes to the stream rely almost exclusively on the JBA Report - "Latchmore Catchment: Assessment of the Hydromorphic Impact of Potential Restoration Options. - September 2014 " .

That Report forms part of the EIA as "Appendix 6.2 - JBA Assessment of Hydromorphic Impact of Restoration Options".

FoL provided extensive comments and questions (over 270) on that Report to LUC / Forestry Commission on 9 March 2015. There has been no feedback on these comments and questions despite a number of attempts by FoL requesting a meeting. As the JBA Report is the **only** hydrological information in the EIA which looks at specific locations, all the comments and questions still apply and need to be addressed as part of the EIA.

Consequently, the document " 'Friends of Latchmore' (FoL) Comments on the JBA Latchmore Catchment Modelling Report of September 2014" (dated 9 March 2015) , is formally attached to this submission as **Appendix No 1 with the comments and questions to be taken as part of this objection to the EIA and proposed works.**

D. There is no detailed design of the proposed development, relying on a series of small scale maps (ES Volume 2 - Figures 4.1 to 4.13) which are so general as to be meaningless in terms of determining what the development involves in its complexity and physical construction, making any Planning decision based on them inherently unsound.

There is no detail provided of the proposed development - for example, no engineering plans, no cut and fill calculations, no descriptive instructions to the Contractor as provided e.g. for the Wootton Riverine project - to ascertain what exactly will be delivered.

General statements about "*restore the Brook to a more natural, meandering state*", together with generic "Method Statements" are so vague as to be meaningless and not sufficient for such a major development.

E. The conclusion of the EIA that there will be minimal significant negative effects from the proposed works on its ecology and hydrology, its leisure and tourism, and the downstream areas where it subsequently flows into the River Avon SAC are inadequately substantiated and make the conclusions unreliable and the risk of failure to achieve the objectives without adverse side-effects very high.

The main submission below provides examples (which are not exhaustive) of these issues under the Topic subjects:

- Inadequate height information for design of water based engineering ;
- The hydrological modelling;
- Thompsons Castle stream;
- Studley Wood;
- Ponds;
- Southern Damselfly;
- Birds;
- Fish;
- Archaeology
- Roads, verges, and properties;
- Recreation and tourism;
- topography and geology;
- and other features

**F. The evidence from recent local restorations, for example - Ditchend, Amberslade & Broomy, and Harvestslade, is that they have required significant and repeated remediation. The Latchmore proposal is more than 20 times larger than these works. The risk of significant remedial works beyond 2020 has not been ascertained but should be considered as part of the "Sustainability" issues of the proposal.
(Ref: para A above)**

The National Planning Policy Framework (NPPF) Paragraph 118 sets out "*.....a number of overarching policies which, taken as a whole, contribute to the achievement of sustainable development.*" Para 6.10 - Planning Statement. This indicates both in terms of preventing significant harm, where the downstream effects have not been assessed, and where the benefits are unproven, why this proposal should be refused.

The need for caution is also stated by the River Restoration Centre **PRAGMO** Guidelines (PRACTICAL RIVER RESTORATION APPRAISAL GUIDANCE FOR MONITORING OPTIONS) part sponsored by the EA and endorsed by NE, which includes the following:

"It is important to ensure that complex or non-standard restorations are investigated thoroughly prior to deciding on any restoration proposals."

"Appendix 6.9 New Forest Wetland Restoration Review" is an unrepresentative sample of past works and cannot assess the changes that have taken place as there is minimal baseline information from before the works. (see 16_00571 - NEIGHBOUR_REPRESENTTEE_576595 for a more detailed analysis.)

G. The "Do nothing" option has not been sufficiently considered. The Baseline information is minimal, and monitoring has not taken place over a period of years to assess what changes are already taking place. Only after more comprehensive monitoring, can consideration be given to selective, targeted intervention .

This is inconsistent with the NF Wetland Management Plan which states:

"4.5 Monitoring

Appropriate monitoring is desirable of a number of reasons:

- ◆ Monitoring specific pre/post works allows the success or otherwise of restoration works to be determined and to use lessons learned in the design of future schemes.*
- ◆ Results give a scientific basis from which to present the likely impacts of future works with more certainty.*
- ◆ Although the likely effects of works are known to many of the existing staff who have built up a good level of experience in implementing wetland restoration works, this information is not documented and will be lost when these staff move on.*
- ◆ Gives some comfort to stakeholder that the effects of schemes are being watched post completion."*

Based on the points A to G above, this application fails to meet the "New Forest National Park Authority's Core Strategy and Development Management DPD " CP1, CP2, CP4, CP6, CP7, DP1, DP2, and DP4.

In summary, the proposed development will be extremely damaging to the natural environment and ecological status of the wildlife of the Latchmore catchment. It has not been shown to be either necessary or desirable. The scale of the development is disproportionate and excessive, and will cause major disruption to residents and damage to roads and adjacent buildings, through massive and wholly unacceptable traffic movements. The EIA is seriously inadequate and fails to show that the benefits claimed are likely to be achieved. The failure of the Forestry Commission to adequately monitor the consequences of previous "restorations" fatally damages the credibility of these proposals, and we urge the NFNPA to refuse consent.

Detailed Analysis

The following paragraphs set out in more detail a series of issues which support this objection.

The EIA is very complex in the way it is set out, and there are many inconsistencies, as well as poor or non-existing referencing between statements on the same topic.

As a consequence, the following paragraphs are not an exhaustive account of why the EIA is unacceptable, but act as an illustration of why the EIA fails to address the issues.

What is the "Development" under consideration ?

1. In order to provide comment on the Planning Application it is necessary to understand what is being changed on the ground, and as it is an environmental development, to also understand the likely outcomes, and whether these have significant effects on its protected status.

2. Paragraph 3.3 in the Planning Statement describes what is the intended outcome :

" The wetland restoration works are seeking to restore the Brook to a more natural, meandering state....."

but this is a purely generic statement of ambition rather than the actual outcome in relation to a Planning Application.

3. ES Volume 1 - Chapter 1 - "Introduction" para 1.3 and 1.4 provide a statement of the *" objectives of the restoration works, as defined by the FC"*: but these are hydrological processes, also generic rather than specific outcomes.

4. The Proposal maps and Method Statements provide further evidence that the Planning Application does not describe or illustrate the outcome on the ground. Sections A and D cover these issues in more detail.

A. There is no reliable evidence that the works proposed would be successful in achieving Paragraph 3.3 of the Planning Statement which states that *" The wetland restoration works are seeking to restore the Brook to a more natural, meandering state (with a reduced gradient), reduce erosion of the stream banks and bed, reduce the rate of flows entering the main channels and prevent the drying out of the surrounding ground, specifically the mires."*

5. The words "seeking to..." in para 3.3 can only be an optimistic aspiration as there is no evidence presented in the EIA that these proposed works will achieve a more natural meandering state relevant to this Planning Application. The intention to create 5 kms of meandering stream over its 7 km length is neither natural nor beneficial. The main cause of the flash flooding is the herring-bone drainage that will remain untouched, and the Brook will 'naturally' seek its own solution to the unnatural construction forced upon it, involving significant sediment movements when flash floods continue to occur.

6. In reality the river changes in energy, discharge, velocity, channel characteristics and load as it travels down its course. A stream profile made up of 70% meanders while falling in height by 80 metres over 7 kms is totally unnatural.

7. More detailed height data than LIDAR is essential to clarify the significant anomalies already visible by comparing the ground with the Proposal Maps. In some cases, the proposal is to move the stream to **higher** ground at the edge of the valley floodplain which will require major engineering re-landscaping, outside the Method Statements listed, requiring different solutions.

8. None of the four statements for the proposal provide the necessary detailed design nor any target outcomes of what this "more natural meandering state" will be.

The claims regarding expected changes to the hydrology

9. Regarding the general changes to the hydrology of the stream after the works stated in Paragraph 3.3 above :

- 10. **The reduction in gradient will be minimal** from 1.18 % to 1.12% between the watershed and Ogdens, thus having no material effect; (The main stream channel is lengthened by 400 metres over 7 kms, with a height change of 83 metres.)

- 11. **There is no reliable evidence that there will be a reduction in erosion of the stream banks and bed once 96,000 tonnes of hoggin and clay is introduced to the stream.**

Observation of recent works at other sites show that the new stream bed and existing channel infill **are very unstable when saturated despite attempts at compaction on construction and the use of ever bigger stones on the bed. Heavy rains and flash floods will sufficiently de-stabilise them at some point in space and time** that the new unnatural channel profile will seek major readjustment over the subsequent years.

12. **Table 6.13: Summary of Water Environment Effects** states that all residual effects to the hydrology **after the works** will be all **Major or Medium beneficial**. The EIA concludes that there will be no indication of any negative effects of sediment discharge from the 96,000 tonnes of hoggin and clay added to the water course, nor any potential effect on the areas downstream of the works. This is not a credible statement, as shown by on-site observations of other recent projects, and is therefore a high risk assumption for such a large and complex catchment. (See PRAGMO below.)

- 13. **There is no evidence in the EIA that the rate of flows entering the main channel will be reduced.** The main sources of these enhanced flows are the dense herring-bone drainage in the Inclosures, which are not being altered by the works. Not only was the complex herring-bone drainage excluded from the JBA modelling, but there have been no flood flow figures published in the EIA to indicate what the Return flood flows would be after the works, never mind the rate of flows entering the main channel. The only data provided in the FRA for the post works is "Flood Depth" and nothing on "frequency" of flooding, which is an absolutely crucial factor for improving wetland plant communities, although no quantitative targets are stated.

14. In practice, once the water enters the channel, there will be similar flooding of the floodplain as now, and the waters will still arrive downstream in a similar fashion to today due to the low permeability of the soils:

(FRA (page 15) :

"Given that the width of inundated area would not significantly change, this demonstrates that the floodplain is spatially confined so that the effect of flood magnitude is reflected in the floodplain flood depth with minimal impact on inundation spatial extent and pattern. "

15. In addition it goes on to state that :

"The UK National Soils Research Institute map suggests that most of the soils around Latchmore Brook are "slowly permeable wet, slightly acid, base-rich loamy and clayey soils with impeded drainage". The upland plateaux around the channel are composed of "naturally wet, acid, sandy and loamy soils". Apart from localised groundwater contribution in the form of groundwater flooding, the overall low permeability of the soils is considered to be the main reason for surface water flooding along the Latchmore Brook floodplain." (page 16)

16. It should also be noted that *"The hydraulic modelling reach has not been expanded beyond the Ogdens area (i.e. Ogdens footbridge) to cover the Huckles Brook and therefore there are no modelling results with regards to flood risk in this area."* (FRA page 15)

17. **In conclusion there is no evidence that the rate of flows entering the main channel will be reduced.**

- **18. The works will have minimal effect on any potential or actual** *"drying out of the surrounding ground, specifically the mires"* due to the nature of the soils (see above) and the fact that the mires are situated at a height well above the influence of the proposed works. (Nick - points from the main channel are not a significant factor in erosion into the mires, and cannot justify infilling of the whole stream (eg at Thompsons Castle Mire - where localised effects close to the mire may benefit from some remedial work.

FoL Comments to Forestry Commission (9 March 2015) on the JBA Report -

"Latchmore Catchment: Assessment of the Hydromorphic Impact of Potential Restoration Options. - September 2014 " still apply and is included as **Appendix No 1** to this submission.

B. The EIA provides no material or substantive evidence that the restoration works will restore the SSSI units within the Latchmore catchment into 'favourable' condition.

19. Paragraph 3.4 includes :

"..... The restoration works are therefore being proposed to restore the certain SSSI units within the Latchmore catchment back into 'favourable condition'. "

The EIA does not provide any information on specific targets for improvements required in order that the SSSI Units can achieve "favourable" condition as a result of these works.

These omissions include:

- **no information on what needs to improve;**
- **no information on what success would look like;**
- **no information on what might be a reasonable timescale appropriate to this Planning Application.**

20. Indeed, it is admitted in the EIA that the SSSI geological feature at Studley Wood will move from 'favourable' at present to permanently 'unfavourable' condition.

21. **It should be noted that the NFNPA is the Competent Authority with regard to the Habitats Regulations 2010, and has a duty to ensure that not only should appropriate steps be taken to avoid the deterioration of natural habitats and the habitats of species, but also prevent disturbance of the species for which the areas have been designated, irrespective of whether it requires an Appropriate Assessment.**

22. This proposed works are 20 times larger than any of the New Forest works completed in the past few years (wrt imported material).

23. The proposed replacement of the existing stream by a new man-made channel involves the destruction of the existing habitats of both stream and access strip up to 30 metres wide of bankside habitat, together with the addition of 96,000 tonnes of imported hoggin and clay, and the hydrological reaction of the changes proposed is unknown.

24. Moreover, the results of the hydrological modelling used in the EIA are given a clear "health warning" by the Consultants, which together with the local observations of FoL indicate that it should not be relied upon.

25. The possible outcomes are highly uncertain, and there is no evidence that the conditions will improve. Based on evidence from other works, this site will require continued remedial works as the new hydrological regime attempts to adjust to the unnatural long profile, and newly varied channel shape and gradients which it would be forced to follow in the short term.

26. The conclusions in the Planning Statement include:

*"The proposed wetland restoration works **will assist in restoring** New Forest SSSI Units 28, 30, 43, 44, 48, 49, 50, 58, 61, 66, 540, and 541, **significantly contributing to the conservation of the New Forest SAC.**"*

but fails to assert that it will successfully restore the SSSIs to "Favourable condition". This seriously damages the rationale for undertaking the work at all.

27. Based on Natural England's assessment criteria for "Favourable" condition it is clear that it is unlikely to achieve this, due to the inescapable continuing future evidence of artificially modified drainage.

C. The baseline information provided in the EIA is totally inadequate as a means of assessing the potential effects on the site and downstream areas.

28. Data is an important resource and may be costly in time and effort to obtain. The Scoping Report highlighted the very limited surveys planned in preparation for the EIA, and this was commented on by FoL in its response to the NFNPA. The publication of the EIA has shown that there has been no material attempt to expand the data collected despite the extension of the timetable by almost a year.

29. In the early stages, the HLS Partners were informed that FoL would be happy to help with collecting data but this was not followed up by the FC. Various data were nevertheless collected and the FC informed, including flood flow observations and Southern Damselfly surveys, but these were not taken up despite a number of reminders by FoL.

30. Other local individuals have a wealth of knowledge about the area relating to various species which has been ignored by the FC and the consultants, in a clear violation of the provisions of the Aarhus Treaty.

31. The NFNPA's own Strategy - "Nature in the New Forest: action for biodiversity New Forest National Park Authority - June 2012" states that:

"The Forest is a magnet for academic research and there are a wealth of local ecologists and wildlife recording groups. This enthusiasm could be harnessed and channelled to help meet specific and priority data needs and to engage communities in better understanding their local wildlife (see pg people section) . (page 38) "

Data and information: Strategic actions

- *Support and engage voluntary groups and individuals who record and supply data on the distribution and status of species."*

"Volunteers also play a major role in recording habitats and species and their status, and without them our knowledge of biodiversity in the UK would be much poorer. Volunteers can act as ambassadors for nature in the community. " (page 47)

32. Notwithstanding this, and the very limited surveys by the Consultants - the baseline data presented is patchy and unrepresentative of the site, and consequently the EIA cannot properly assess the potential significant effects on species and existing hydrological processes .

33. The FoL response of 14 September 2014 to the Scoping Report included:

"The proposed baseline survey work is inadequate. Much of the proposed work has apparently been completed before the scope of the EIA has even been finally drafted, let alone approved. This is wholly unacceptable, as the scope, methodology, & timing of these surveys & observations may be inappropriate or inadequate. The monitoring "clock" must start when the scope has been

approved. Even one year of monitoring is in any case insufficient to establish a reliable baseline for quantities that vary greatly from one year to the next such as hydrological parameters and the abundances of animal species."

34. The EIA addresses the proposals in a particular way, dispersing topics through the framework. This FoL response is presented by process, species or location, bringing together some of the topics from the various sources in the EIA which cause the most concern. These are not exhaustive, but illustrate why the EIA is unacceptable in assessing the Planning Application as presented.

The topics chosen below cover both the inadequate Baseline data and the potential significant negative effects which have been under-estimated or in some cases ignored. (C and E in the Summary).

35. The Topics chosen to illustrate the issues include:

- Inadequate height information for design of water based engineering ;
- The hydrological modelling;
- Thompsons Castle stream;
- Studley Wood;
- Ponds;
- Southern Damselfly;
- Birds;
- Fish;
- Archaeology
- Roads, verges, and properties;
- Recreation and tourism;

36. The reliance on inadequate height information at the engineering scale for a water ;

LIDAR data is a suitable source of Digital Terrain Model (DTM) at the catchment scale but is not accurate enough for large scale engineering work involving potential subtle changes to drainage channels (on a scale of a few centimetres) which could materially affect the hydrological conditions both locally and downstream. Investigations at Pondhead, comparing tertiary levelling with LIDAR confirmed that LIDAR had produced unworkable plans to redirect the drainage.

37. The hydrological modelling;

37.1 The implications for the hydrology and the proposed changes to the stream rely almost exclusively on the JBA Report - "Latchmore Catchment: Assessment of the Hydromorphic Impact of Potential Restoration Options. - September 2014 ". The Flood Risk Assessment concentrates on flooding issues at the catchment scale and concludes that there will be little change.

The 2014 JBA Report forms part of the EIA as "Appendix 6.2 - JBA Assessment of Hydromorphic Impact of Restoration Options".

37.2 FoL provided extensive comments and questions (over 270) on this Report to LUC / Forestry Commission on 9 March 2015. There has been no feedback on these comments and questions despite a number of attempts by FoL requesting a meeting. As the JBA Report is the only hydrological information in the EIA which looks at specific locations, all the comments and questions still apply and need to be addressed as part of the EIA, but many have not.

Consequently, this document is formally attached to this submission as **Appendix No 1 " 'Friends of Latchmore' (FoL) Comments on the JBA Latchmore Catchment Modelling Report of September 2014" (dated 9 March 2015), with the comments and questions to be taken as part of this objection to the EIA and proposed works .**

37.3 Examples of the concerns about the hydrological modelling include:

- **The over reliance on hydrological modelling** (see para 37.4 below)
- **No account taken of the herring-bone drainage in the Inclosures**
- **Modelled area does not include significant parts of the Inclosures and other Units**
- **No field data monitoring baseline erosion rates over time**
- **No spot monitoring in flood conditions to verify computed 2 year flood flow**
- **Only one computed Baseline 2 year return flood flow figure published**
- **No flood flow figures published for any sub catchment to verify the claim that flows will decrease.**

37.4 **The over reliance on hydrological modelling**

"Chapter 6 - Hydrology and Geology" Paragraph 6.67 states:

- *"Whilst river modelling has been used to identify the likely changes in velocity and shear stress in the modified channel, there is currently no hydro-morphological model available in the UK or indeed worldwide that can assess the effect of a river restoration project on sediment dynamics, channel shape and form into the future. This level of sophistication or confidence is not available in any hydro-morphological model and hence the JBA report, indeed all hydro-morphological studies, require the interpretation of the results of a hydraulic model. This is the approach used in this assessment.*

and further at para 6.170:

"Despite the use of the most up to date 2-dimensional modelling techniques there may be locations along the watercourse where the installed channel works may not provide a stable solution and further unpredicted erosion or channel change could occur. As with any river restoration, a degree of change is expected as the channel finds its equilibrium."

37.5 No account taken of the herring-bone drainage in the Inclosures

Chapter 4 Project Description and Design states:

4.10 Within the uppers sections of the catchment in the Inclosures there are a number of shallow herringbone ditches. These will not be infilled. Whilst infilling the herringbone ditches could help to reduce runoff rates, it would make the land less suitable for forestry and increase stress to existing trees – e.g. oak due to increased soil moisture content. Where the ditches meet the main watercourse, works will be undertaken to grade them in to the new bed levels of the main stream, therefore reducing the rate of flow input from these channels.

37.6 The herring-bone drainage has not been included in the JBA modelling, and hence the only Return Flood Flow figures in that 2014 Report and "Table 2. Estimated flood flows at the downstream end of Latchmore modelling reach" - FRA - page 14 do not take account of them.

In addition, Table 2 is for the computed Baseline before the works, and no Return Flood Flow Tables have been published for after the works to indicate any change in the likely outcome. The only data provided in the FRA for the post works is "Flood Depth" and nothing on "frequency".

37.7 In respect of any engineering relating to the herringbone drainage, they will need to be graded in to the new bed levels, but this is easier said than done - particularly where the herringbone drainage on the opposite side of the existing channel is lower than the new bed level - an example of the need for detailed design.

37.8 Whether new meander or partial infill - the rate of flow out of the herringbone drainage is unlikely to be reduced. As there has been no practical assessment or accurate modelling (ie large scale mapping x,y,z by total station) of these complex drainage systems, the EIA has not identified the magnitude of the issues, particularly applying to Islands Thorns.....

37.9 Modelled area in JBA report does not include significant parts of the Inclosures and other Units

37.10 The maps in Appendix 6.3, together with the Hydraulic Habitat, Sheer Stress, Inundation, and Velocity Output Simulations provided to FoL in December 2014 indicate beyond doubt that areas of Sloden Inclosure SSSI Unit 541, and Studley Wood north-east tributary were not included in the model.

37.11 Furthermore, "Chapter 6 para 6.31 - Outputs from JBA's modelling study" states:

*".....It should be noted that the JBA report **did not cover all SSSI Units in the Latchmore Brook** but it covered the key units including SSSI Units 48, 66, 540, 44 and 43. Despite the identified uncertainties involved in the JBA modelling results, they are deemed to be appropriate for comparative assessment."*

37.12 The Studley Wood SSSI geological feature is in SSSI Unit 58, Claypits Bottom in SSSI Unit 30, both of which will be involved in the proposed works. SSSI Unit 31 upstream of Eyeworth Lodge is also a significant part of the catchment as are SSSI Units 54, 55, 59, and 60 and the surrounding edge of the catchment.

37.13 The only conclusion is that the hydrological modelling has not considered the impact of all the drainage on the catchment, there is no basis on which they may be “deemed to be appropriate” and the assessment cannot be relied upon.

37.14 No field data monitoring baseline erosion rates over time

The statements in the EIA regarding the movement of knick- points are unsubstantiated general statements made to justify the works. There are no measurements recorded over time to justify the need to remove them all by infilling the whole stream. (This does not preclude the need for some careful and sympathetic remedial works at the base of the Thompsons Castle mire.)

Post works monitoring may show what is going wrong after the event, but without a detailed Baseline before the works - it will not assess the effects of the works itself.....

The Planning Statement states:

"6.18 An agreed monitoring and action plan will be implemented to monitor the recovery rate and implications of the proposed works. This is included in Appendix 4.3 of the ES. As such, if inspection or public information suggests that the proposed works are having an adverse effect on flood risk, an action plan will be implemented to respond to the concern swiftly.

6.19 As such, the proposed scheme complies with Core Strategy and DM DPD policy DP4."

It should be noted that the lack of an adequate baseline of erosion rates makes it impossible to achieve these aims, which is an indication that the EIA does not comply with the **Core Strategy** and **DM DPD policy DP1**.

37.15 No spot monitoring in flood conditions to verify computed 2 year return flood flow

37.16 It is impossible to understand from the EIA what has actually been used to create and confirm any flood flow data. The fact that values for the Ogdens baseline flood flows are the only ones published is also indicative of the inadequacy of the source data.

37.17 Flow Measurements are covered in Chapter 6 paras 6.62 to 6.65 indicating that Dockens Water was used concluding :

*"..... Therefore, in accordance with best practice FEH recommendations, **available flow records on the adjacent Dockens Water and empirically derived values were used to estimate flows.**"*

37.18 Para 6.66 continues:

" Further explanation on the options that were considered to estimate flows are set out in **Appendix 6.3.** " which includes:

"..... In the JBA report (2014) the ReFH method is used with **no donor adjustment**. Whilst ReFH with an altered Time to Peak (Tp) could be used without any measured flow data on Latchmore Brook, the use of unadjusted ReFH is considered acceptable and has been used in this assessment."

37.19 Finally and most confusingly para 6.69 states :

*"The effect of the proposed works is also assessed by comparing the velocity and shear stress for a range of flood flow conditions, as it is at these higher flows that sediment entrainment occurs and channel shape is more likely to change. The median annual flood (QMED) with a return period of two years is used, as under the river regime theory this bankfull flow is likely to cause the maximum amount of erosion. In the JBA report (2014), the Revitalised Flood Hydrograph (ReFH) method was used to estimate the QMED for Latchmore Brook. **As advised in FEH, this should normally be compared with the QMED from flow data from the gauge on Dockens Water to allow a donor adjustment.** However, given that the record at Dockens Water is short (12 years), and the two catchments are different (with respect to man-made influences and runoff patterns due to drainage improvement works such as channel straightening and the creation of tributary side channels in Latchmore Brook), **it was decided that the FEH methods should be used without a donor adjustment.**"*

37.20 This confusing account would appear to indicate that there is an even greater need for actual spot flow measurements at Latchmore Brook during flood conditions to assess the value of the only computed dataset published.

That is - the baseline 2 year Return flood flow figure of 6 cu m/sec at Ogdens together with the additional Q5 to Q25 in " Table 2. Estimated flood flows at the downstream end of Latchmore modelling reach" on page 14 of Appendix 6.6 - Flood Risk Assessment.

37.21 FoL have repeatedly requested a meeting at Latchmore with the Hydrologists to discuss this.

Indeed the Scoping Report (2014) stated at para 4.19 that:

*".... It is not clear how or where these larger flows have been measured, and therefore **further clarification will be sought** from the Friends of Latchmore to determine how the hydrological information can be used."*

Such a meeting was declined by LUC / FC, and the EIA states in "**Appendix 6.1: Consideration of the Friends of Latchmore Consultation Response**" that:

".....It is also not appropriate as part of an EIA to rely on data provided by a third party particularly when the methods used to gather the data are unknown..... "

37.22 FoL and residents have a very good idea of the way the Latchmore catchment displays its character over the years, particularly by observing the flooding that takes place at the Shade and Ogdens, as well as down into the residential areas of Huckles Brook. In addition, many photographs and have been taken during these flood flows.

37.23 Notwithstanding the above, when it comes to reviewing the information on spot flow monitoring in different parts of the EIA documentation, they are also confusing and conflicting:

The FRA (page 13) states:

"....No survey of the channel section (i.e. cross section topographic survey) has been undertaken and this may be a limiting factor for the absolute accuracy of the model. However, as the model is only used for the comparison of flood depths / inundation extent before and after the implementation of restoration measures and the fact that the source of model uncertainties remain the same for both conditions and no detailed design is expected the adoption of such a methodology can be adequately used for the purpose of flood risk assessment in a comparative manner....."

37.24 The FRA goes on to state (page 14):

"Improving confidence in flow calculations could only be addressed through some flow gauging and monitoring which was infeasible for the Latchmore Brook. This is simply because the period over which the data should be collected will normally be a lot longer than the project timeframe. Uncertainties involved in the flood flow estimates may introduce overestimations / underestimations in flood flow hydraulics.....Table 2 presents the estimates of flood flows at the downstream end of the Latchmore Brook modelling reach."

37.25 These statements ignore the **spot flow cross-sections and methodology reported in Appendix 7.4** Aquatic Ecology Report, which indicate that such measurements are possible:

" **Appendix 7.4 Aquatic Ecological Baseline Report**" at page 17 states:

" Spot flow measurements were taken by Cascade staff at ten sites using the USGS velocity area (six-tenths depth) methodology""

"3.2.2 Results" only provide the poorest descriptive information.....and adds:

"A spot flow survey undertaken by Cascade Consulting on 28 February 2014 during a period of high flows revealed that flows in the catchment ranged from 0.276 m³/s at Islands Thorn Inclosure at the top of the catchment to 0.908m³/s at Ogdens Car Park."

37.26 Chapter 6 - Hydrology and Geology includes:

*6.64 Additional flow measurements were undertaken on 28th February 2014 and 15th October 2014 (see **Table 6.7**) on Latchmore Brook. **The gauging programme did not capture any flood flows and the channel was dry/ponded in October.***

37.27 Finally Appendix 6.3 - "**Estimation of Flow**" states:

"The only difference is the man made influence and changes to runoff patterns due to drainage improvement works such as channel straightening and the creation of tributary side channels. However without a time series of flow data, the effect of these works and any difference between the two catchments cannot be assessed or quantified."

37.28 Absolute values of flood-flows are crucial as they affect the scale of the shear and erosion forces which will be applied to the 96,000 tonnes of infill material. Observation of other works (eg Ditchend) has shown that these infills are ripped apart by normal flash floods experienced in these Forest streams.

37.29 Both the EIA (Appendix 7.4), and observations made by FoL show that flow measurements are "feasible" and are needed to verify the validity of the modelling calculations.

37.30 The conclusion regarding the basis on which the hydrological assessment has been assembled in the EIA is that it is inadequate as evidence that these proposed works are justified.

The hydrology of Latchmore Brook from headwaters to Ogdens is extremely complex, non-standard, and there is virtually no "evidence based data" being used.

The need for caution is also stated by the River Restoration Centre **PRAGMO** Guidelines (PRACTICAL RIVER RESTORATION APPRAISAL GUIDANCE FOR MONITORING OPTIONS) part sponsored by the EA and endorsed by NE, which includes the following:

"It is important to ensure that complex or non-standard restorations are investigated thoroughly prior to deciding on any restoration proposals."

38. Thompsons Castle Stream:

38.1 As with the rest of the Latchmore proposal, there is a blanket assumption that the solution to any real concerns regarding the Mire at Thompsons Castle is to infill the whole stream.

38.2 The EIA claims at the catchment level in Chapter 12 - Summary and Conclusions that there will be no significant residual adverse (post-mitigation) effects on the hydrology, and ecology (except fish) and only "significant residual beneficial (post mitigation) effects will occur in relation to hydrology and ecology (including fish) " .

38.3 There is no conclusion in relation to specific locations such as Thompsons Castle Mire and its stream, and this overarching post- works assessment is disputed for Thompsons Castle stream.

38.4 Mire Restoration Objectives stated by the FC are:

- *To stabilise mire systems against further erosion and drying as a result of artificial drainage either in the mire itself or from knickpoint migration as a result of downstream artificial drainage.*
- *Improve water levels and water retention within mire systems.*
- *Re-establish/improve the quality of mire habitat communities.*

38.5 As there are no measured baseline figures for any of these attributes, nor computed figures published from the modelling, it is impossible to assess whether these objectives are likely to be achieved as a result of the proposals.

For example:

- there are no published results of predicted flood flows at the sub catchment nodal points (including at the junction with Latchmore Brook),
- no indication of the location of the knick-points that are causing concern,
- no indication of the rate of movement which might threaten the mire
- no target improvements to assess what is required for success.

38.6 FoL have completed a long profile topographic height survey of the mire and stream which confirms that the stream has an average gradient of 2 degrees and the mire 6 degrees - a very steep gradient for such features.

38.7 The proposal is to partially infill the whole length of the stream, but there are no detailed design drawings or descriptions which define exactly what is proposed.

38.8 The "New Forest SSSI Ecohydrological Survey Overview Annex R: Lay Gutter Valley" - published in March 2014 provided the most detailed information on the mire and stream, including the proposals below:

"1.6.2 Restoration

Restoration should focus on two areas:

· *Gulley Area - (in Latchmore Mire)*

.....

· *Drained valley (the TCM stream)*

*- a large dam or bund structure will now be required to prevent further headward erosion into the valley mire upstream. This should consist of a **concrete structure** with a sloping downstream face to prevent erosion and undermining of the structure.*

*o Below the above and **at the various nick points** in this stream, **a series of plastic sheet pile dams** should be installed with very low crest heights, only 15cm or so in each case. Ideally these should be positioned so that the water pouring over the crest falls into the next pool created by another plastic dam downstream, cascading downstream until the original bed of the stream is encountered;*

o The rest of the drained valley provides potential for the extension and restoration of the valley bottom wetland; however restoration objectives need to be created for this area.

For example, in the lower part of the valley, mire has been replaced by lawn so management decisions are required to assess the value of restoration.

There is no indication how this proposal has been considered or whether it forms part of the plan for which permission is sought.

38.9 The name given of "Drained valley" is a misnomer, as the water flows 365 days a year down a steep V - shaped valley.

Based on the JBA modelling simulations, the only way to create a widespread flow across the lower east lawn would be to infill the ground at the footpath crossing - a piece of major engineering which is unreported in any of the proposals.

38.10 The JBA "Latchmore Catchment: Assessment of the Hydromorphic Impact of Potential Restoration Options. (Appendix 6.2 to the EIA)" includes over 17 pages on Thompsons Castle, which were extensively commented on by FoL in their Report dated 9 March 2015 sent to LUC / FC.

That FoL Report is attached to this Objection at Annex No 1, which includes relevant FoL photographs to help explain the comments and issues raised.

38.11 The Sections related to Thompsons Castle stream and mire include the Summary below and para 1.5.4 - page 15 onwards to page 24; page 43 to 46; page 50 to 74 all contain many concerns regarding the modelling and the propositions made by JBA in their Report..

As this is also Appendix 6.2 to the EIA, all these issues raised by FoL should be treated as concerns regarding the EIA.

38.12 Extract from Summary - FoL Report - (March 2015)

" 3. Thompsons Castle SSSI Unit 43 and Unit 28

"Thompsons Castle Mire (SSSI Unit 43) and the connected outflow through the relevant section of SSSI Unit 28 appear to have been given a proportionately much larger analysis than any other section of the catchment. (17 pages)

The FoL analysis and comments on the Report are consequently more comprehensive for Thompsons Castle than for other parts of the Report, illustrating, as the main example, the short-comings of the modelling over the whole Report, and the sweeping conclusions drawn.

The conclusion is that the Thompsons Castle study sections do not provide the necessary level of information and analysis of its hydrology to form the conclusions made.

For example:

- There is no quantified sub-catchment water flow data to compare with Table 3-1 or for Scenarios B,C, D , or justification for the proposed "Works".*
- The hydrology of Thompsons Castle SSSI Units 43 and 28 is independent of Unit 540, 66, 48 and the rest of the Catchment. However, the text on this stream is disjointed , with Figures and commentary split into piecemeal sections which are difficult to relate to each other.*
- The stream should have been documented as one Chapter in the Report covering the whole Sub-catchment and viewing the whole stream, rather than mixed within other sections and disjointed sections analysed.*
- The NFHAG Report provides much useful evidence on the hydro-geomorphology of this unique sub-catchment, providing pointers to an important aspect of the medium term hydrological "flood flow" dynamic of this stream. Its total absence from the JBA Report is unacceptable. "*

38.13 The following additional points are also raised here as a result of the publication of the EIA :

- The statement in Chapter 6 - Hydrology and Geology para 6.153 still does not refer to or take account of the the HAG survey of 2001 mire slump which was highlighted in the FoL Report (9 March 2015), nor the likely important effect on the dynamics of the mire caused by the funnel and the containing landform constricting its flow also mentioned in the FoL Report ;
- The remedial measures of 2001 failed within 2 years and there is no information in the EIA or Planning Statement that any alternative methods have been considered or will be employed.
- This complex location requires more detailed survey and monitoring of the mires dynamics at this point, and a large scale survey and design of any proposals prepared before deciding if they are sustainable.
- Nick points are not an issue in the middle and lower sections of the stream that would justify infilling the whole stream. The gradient of this stream is between 1.5 degrees and 2.5 degrees which will immediately erode the unstable infill while destroying the existing habitat and rare species present such as Southern Damselfly, eel, and Rufous Grasshopper found there. There are (sensibly) no proposals to reduce the gradient of the stream as its length would have to be increased by 450 metres of meanders to reduce the gradient to below 1 degree.
- The proposal to flood the lawn will require extensive infilling of the footpath crossing point with imported material which will result in hoggin and clay sediment covering the existing lawn area. Para 6.139 to 6.142 of Chapter 6 do not explain the likely source of the sediment in the "floodplain" inundation, or its effect.
- The flow of water through the bottom section of the stream on the Proposal map needs clarification. The bottom right (east) channel is not earmarked for infilling while the left (west) channel (already elevated) is annotated for partial infilling. This proposed configuration is unworkable, and should be left alone to safeguard the existing habitat of the east channel which would be contaminated by sediment eroding from the infill above....!
- There is no reference to local Southern Damselfly surveys in 2013 which established that SDF were breeding in the stream which will be destroyed by the proposed works, or the presence of Scarce blue-tailed damselfly in the lower part of the stream (which are very scarce).

38.14 Chapter 7 - Ecology - para 7.132 states :

*" Based on data collected to inform this chapter, the restoration proposals have been amended to take account of ecological sensitivities. For example, as southern damselfly is a key feature of the New forest SAC, and present at the site, **areas of habitat currently sub-optimal for damselfly will be re-profiled to improve its suitability. This will involve creating shallower, sloped channels in place of the deeply incised eroded channels that are currently present.**"*

In the case of Thompsons Castle stream the proposal involves destroying already "shallow, sloped channels" which are already well suited to Southern Damselfly. The "deeply incised channels" are actually a haven for other wildlife including other dragonfly and damselflies, and after the works will be contaminated with imported hoggin and clay which will erode downstream due to the steep slopes greater than 1 degree.

38.15 **In conclusion - The assessment of Thompsons Castle Mire and stream is incomplete and hence seriously flawed, and cannot justify the proposed works to infill the whole stream**

39. **Studley Wood SSSI geological feature**

39.1 The proposals for this important geological SSSI feature are unnecessary and unacceptable as illustrated by the proposed outcome which confirms that the NE condition assessment would change from "Favourable" to "Unfavourable", with no prospect of any further improvement.

39.2 The importance of this site is illustrated by:

- **The Geckoella Report (2010) commissioned for the FC, assessed the site recommending that the feature be left exposed**
- **Various academic papers**
- **Objections to the Planning application from 8 geologists so far, including a member of the Bartonian Working Group**

Moreover, mitigation measures are still to be formulated - ie unknown and unavailable at the Planning stage;

(Page 6 - 6) Chapter 6 " Hydrology and Geology" - 6.22 states:

" Within the NPPF, Paragraph 117 states that: "to minimise impacts on ... geodiversity ...planning policies should aim to prevent harm to geological conservation interests".

(NPPF - Department for Communities and Local Government (2012) National Planning Policy Framework. Crown copyright.)

39.3 Para 6.107 to 6.111 **"Effects on Studley Wood GCR Site during construction"** concentrates on the issues related to the geological feature itself. Notwithstanding the importance of these issues, the landform and drainage is far more complex and the levels more extreme than any other works in the New Forest HLS Programme. There is no indication from the EIA that these aspects have been assessed, and apart from some detailed measurements of the exposure itself (Table 6.10) there are no detailed plans to verify and confirm that the creation of new meanders is a practical proposition.

39.4 Factors so far ignored, or not addressed in the EIA are:

- The depth and width of the ravine, other than in relation to the exposure
- The impact of Excavators moving into this area causing untold damage in these steep locations
- The complex herring-bone drainage feeding into it (76 drains entering the stream down to the junction with the NW tributary)
- The impact on the boundary of the "New Piece" Inclosure
- The complex springs running off both sides of the valley
(para 6.86 states that "No groundwater level measurements are available in the Latchmore Brook catchment, or its floodplain.")
- The number of mature broadleaf woodland trees which would need to be felled for access to and along the site
- The complex engineering design, including significant cut and fill, which will be necessary to allow the drainage from the north-east bank to cross to the new meander route.

39.5 In addition:

" Figure 6.8: Geomorphology Walkover Map (Detailing findings of 27-28 February 2014 Survey "
does not reach upstream to the feature (see 6.77 below) , which is similar to the scope and extent of the JBA modelling (*"Appendix 6.2 JBA Assessment of Hydromorphic Impact of Restoration Options "*)

which also stopped short of this section of the catchment.

*"6.77 A walkover of the eastern tributary of Latchmore Brook in Studley Wood area was not undertaken as the geomorphological reaches were designed to follow on from each of the hydrometric cross sections to allow for the relationship of flow upon downstream geomorphology to be interpreted
The upper most cross-section was situated just below the confluence of the two tributaries to allow for flow from both tributaries to be aggregated and thus did not require cross-sections to be undertaken on each tributary."*

39.6 Without more comprehensive survey information, and detailed plans, it is impossible to provide a proper assessment of the proposal for works on this unique SSSI geological feature, which are likely to impractical, irrespective of the downgrading of the SSSI geological feature to "Unfavourable" which is being ignored.

40. Latchmore Pond at 18937 12671

40.1 The New Forest Pond Survey: Ecological Survey and Pond Management Report - Higher Level Stewardship Agreement - The Verderers of the New Forest AG00300016 February 2014" states:

"Over 1000 individual ponds greater than 1 m2 have now been mapped within the National Park boundary. They are recognised as important features at both national and international levels because many of the restricted species they support are rarely found outside of traditionally managed habitats, such as the New Forest. "

40.2 On 28 November 2012, a member of the Project team was invited to view the Pond at 18937 12671. A full report was prepared including:

".....The pond will be flagged as requiring further survey and a recommendation made that its importance should be recognised and retained whatever the future plans for this part of the Forest.

As the Project sample had already been agreed - it was not included in the NF Pond Survey but monitoring continued - with a first report produced in April 2013. Subsequent monitoring has continued.

40.3 The EIA does log the Pond in "**Appendix 7.3 Habitats and Vegetation Baseline Report** " :

"3.69 A large pond that is presumed to be at least semi-permanent is present adjacent to the Brook (refer to Target Note 32). The central area was not directly surveyed but marginal observation through the clear waters suggest that U4-type acid grassland extends across most, if not all of its base. No distinctly semi-/aquatic species were detected either, lending further support to the view that this body of water is ephemeral."

Target Note 32 in Annex 1 is a photograph of the Pond, with the text:

(" Target Note 32 - 18937 12671

Moderately large pond.

Pond situated adjacent to the brook, where water evidently collects. It is evidently subject to some variation in water depth throughout the year and evidence of poaching exists all the way across its base.

The vegetation is relatively indistinctive and suggestive of periodic drying and flooding of the pond. Distinctive species amongst the usual associates of the surrounding U4 bent-fescue acid grassland (refer to target Note 29) are confined to marsh pennywort, purple moor-grass and a stand of M23b rush-pasture at the western end. "

However this is where any mention of the Pond ends....

40.4 The Target Note annotated on " Figure 7.3 Phase 1 Habitat Map" in the approximate location of the Pond is " 14 " and not " 32 " which is placed in Alderhill Inclosure.

It is also of concern that the description above does not include the fact that the downstream (West edge) of the pond turns into a mire habitat which includes a "quaking bog" before draining to the west. During high rainfall, the overflow water also seeps directly into the Brook.

40.5 Further concern is caused by the fact that this prominent water feature does not appear on either :

- **Figure 4.9 Latchmore Shade and Watergreen Bottom Restoration Proposal Map**
- **Figure 4.11 Thompsons's Castle and Latchmore Mire Restoration Proposal Map**

40.6 The Planning Statement - Compliance with Policy states:

*"6.15 Local changes to groundwater levels, including ponding, due to raised surface water levels and greater presence of flood water on the floodplain may arise as a consequence of the proposed restoration measures. **Removing spoil banks along the existing channel** will also facilitate the movement of previously-trapped water on the floodplain into the channel, enhancing the channel floodplain connectivity and facilitating a more naturalised regime.*

6.16 These changes are desired from the restoration point of view as they will ensure more water is held within the catchment rather than passing rapid flows through the deep and straight channel."

40.7 Also -" Chapter 4 - Project Description and Design - Table 4.7: Removal of spoil banks" states:

"..... The spoil banks that are to be removed are located in all SSSI Units which will have works undertaken."

40.8 Also - Chapter 7 - Ecology under " Direct habitat loss" states:

*"7.141 Within the New Forest Ramsar, SAC, SPA and SSSI, **the degree of habitat loss will be very small.** This loss will be caused through the creation of access routes, the creation of stockpile compounds and the excavation of meanders. Not only will habitat loss be very small, **but it will also be temporary in nature**, given the very short timescales associated with the works. Habitat loss should also be considered within the context of the project's objectives, which seek to improve habitat quality in the longer term."*

" 7.143 Where re-meandering of channels and bed raising is to be undertaken, small areas of habitat will be lost permanently. This will affect areas of dry heath at Latchmore Bottom (SSSI Unit 28), wet heath at Watergreen Bottom (SSSI Unit 49), wet heath at Studley Head (SSSI Unit 58), wet heath at Claypits Bottom (SSSI Unit 30) and wet heath on the western edge of the Islands Thorns Inclosure (SSSI Unit 47). This effect is certain to occur and will be adverse, permanent and irreversible. The extent of the effect is limited in relation to the wider habitat resource. As works will be completed over a number of years, the effect will be frequent. "

40.9 **None of this includes mention of the Pond within Unit 48**

If the spoil heaps are removed adjacent to the Pond, which appears to be the "default" action for spoil heaps, this important Pond will drain away.

The significant effect of infilling the Brook at this point utilising the spoil heaps as part of that process will destroy the Pond, the associated mire, and quaking bog.

There is no mention of these issues in the EIA....

This is an example of the lack of "large scale engineering Design Plans" and the lack of information to explain the proposed development.

41. Southern Damselfly

Baseline Surveys

41.1 In the time available that has been given by the NFNPA for the Consultation period (to 2 September) - it has not been possible to give the other species at Latchmore the same analysis, as the Southern Damselfly.

The issues raised here should be seen as indicative of similar issues that affect other species, which have not been addressed in the EIA. The fact that many surveys have been scoped out - should not allow those species to be ignored.

41.2 The potential effects of the works on the whole catchment, all its habitats and species , and on other areas downstream are fundamental to the completeness of the EIA. The Southern Damselfly assessment is commented on below in detail to illustrate that the EIA is very subjective and involves more unsubstantiated aspirations than actual prediction. It has not identified the many known effects of the works (including those observed at other sites) which will have a significant negative effect on both the existing area and on the potential habitats and species into the future.

41.3 The information compiled in the EIA on the impact of the works on the Southern Damselfly, an SAC species in the New Forest is incomplete and does not take account of the significant effect on this species at both Thompsons Castle stream and the lower east to west section of Transect 4 which overlaps with proposed works in that section of Latchmore Brook.

41.4 The Southern Damselfly Report at Appendix 7.5 by Hants & IOW WT does not take account of local surveys regarding the observation and recording of breeding adults in the last four years at Thomson's Castle stream . These include an extensive survey undertaken in 2013, submitted to the British Dragonfly Society (BDS) , and observations made independently by a Dragonfly Recorder.

41.5 "Bed level raising" the whole length of the Thompsons Castle stream will destroy the habitat already suitable for Southern Damselfly, other Dragonflies and Damselflies, invertebrates and fish, including eel already identified in the stream.

41.6 "Chapter 7 Ecology - Southern Damselfly" states:

*7.65 The full results of the southern damselfly surveys, which included desk studies, habitat appraisals, adult transect counts and exuviae searches, are provided in **Appendix 7.5**.*

7.66 A data search of the HBIC database for southern damselfly records within a 2km boundary surrounding the Study Area returned a total of 160 discrete records within the past 10 years.

After recent enquiries by FoL and others It is now clear that the desk studies etc did not take account of the local survey undertaken in 2013 which had been submitted to the Hampshire Recorder and then to the British Dragonfly Society.

41.7. On 25 November 2013, the Hampshire Recorder confirmed:

"Just to let you know that your records for Latchmore have been batched and sent to the National Recorder. These will then be fed into the national database. Unless something exceptional out of the ordinary is recorded, I'm afraid there is no feedback."

Following this - the Forestry Commission confirmed in their letter of 24 January 2014 that :

"We were made aware of ██████████ SDF surveys by FoL during our meeting on 13 November and note that his data has been passed to British Dragonfly Society. We will make our planning consultants aware so that they can consider this information and data, and that from the Wildlife Trust survey, once the scope of the Environmental Statement is confirmed. "

41.8 The local survey included all the main SDF areas on Latchmore Mire, but also the Thompsons Castle stream where both individual adults and mating pairs were recorded over a 3 week period. Further less frequent observations were made in subsequent years, including one of the days when the Hants & IOW WT recorder visited in 2014 - when breeding adults were recorded later that same day.

41.9 **The inescapable conclusion is that it is necessary to carry out further surveys over the next 2 year of the sections on Thompsons Castle stream where the habitat is suitable for SDF, and have been recorded, but were not recorded in the data used for the EIA.**

41.10 Southern Damselfly - Significant negative effects not identified in the EIA

41.11 Chapter 7 Ecology para 7.68 includes: "Table 7.8: Southern Damselfly Survey Findings" which states:

"Transect 2 was found to support localised areas of habitat that have the potential to support southern damselfly."

Valuation of Ecological Features

7.115 "The mosaic of optimal and sub-optimal habitat means that the Study Area varies in its value for southern damselfly, **however given the conservation importance of the species, a precautionary approach should be undertaken.** It is considered that parts of the Study Area play an important role in maintaining the distribution and viability of the species within the wider New Forest, thus the Study Area is valued as being of **ecological value at the Regional level** for southern damselfly."

7.116 "It is recognised that this level of value only extends to certain areas within the Latchmore catchments as other habitats are of no or very limited value. This includes Ogdens Mire and **Thompsons Castle where, although areas of localised habitat with potential to support southern damselfly are present, no positive results were recorded at the former, and only two potentially transient males were found during the survey of the latter.** It is likely that with the reduction in water levels and flow rates observed across the survey period, the majority of those sections initially considered to have potential to support southern damselfly at Ogdens Mire were no longer suitable by the conclusion of the surveys. **Furthermore, the majority of the transect associated with Thompson Castle mire was comprised of either unsuitable or sub-optimal habitat including sections where the channel is dominated by a coarse substrate (i.e. gravels or cobbles), or is heavily shaded by the deeply incised channel banks and / or dense stands of tall bracken and scrub."**

41.12 **Para 7.116 should be reassessed as it does not take account of the 2013 survey, and the "precautionary approach" highlighted in 7.115 implemented.** The sections with suitable habitat will be destroyed if the partial infilling takes place. Moreover, the "deeply incised banks" nearby provide valuable shelter zones for not only Southern Damselfly but also many other invertebrates and reptiles - which have not been surveyed in the EIA - but have been observed closely by locals.

41.13 Finally - Paragraph 4.27 of "Chapter 4 Project Description and Design" indicates that:

*"The indicative restoration programme outlined in **Table 4.14** has taken account of the following:*

- *Southern Damselfly - Works activity in the channels supporting Southern Damselfly will be undertaken in September in Thompson's Castle, Latchmore Mire and Latchmore Shade to minimise risk to Southern Damselfly adults being injured / killed during works. "*

41.14 **Removal of the stream bed below Thomson's Castle Mire in September 2017 may avoid damage to flying adults but will harm or destroy exuviae which continue feeding until October and will remain in the stream for 2 winters.**

41.15 The Method Statement involving the stream bed being removed and re-laid on the surface of the reworked channel has been ignored by the contractors at recent works elsewhere, leaving heaps for long periods or moving them to other locations elsewhere on the site.

41.16 The flow of water through the bottom section of the stream on the Proposal map needs clarification. (see section on Thompsons Castle stream at 38.13) The bottom right (east) channel is not earmarked for infilling while the left (west) channel (already elevated) is annotated for partial infilling. This proposed configuration is unworkable, and should be left alone to safeguard the existing habitat and Southern Damselfly in the east channel which would be contaminated by sediment eroding from the infill above....!

41.17 "Chapter 7 - Ecology para 7.132" states:

*"Based on data collected to inform this chapter, the restoration proposals have been amended to take account of ecological sensitivities. For example, as southern damselfly is a key feature of the New forest SAC, and present at the site, **areas of habitat currently sub-optimal for damselfly will be re-profiled to improve its suitability. This will involve creating shallower, sloped channels in place of the deeply incised eroded channels that are currently present.**"*

41.18 In the case of Thompsons Castle stream the proposal involves destroying already "shallow, sloped channels" which are already suited to Southern Damselfly. As stated above the "deeply incised channels" are a haven for other wildlife including other dragonfly and damselflies, and after the works will be contaminated with imported hoggin and clay which will erode downstream due to the steep slopes greater than 1 degree.

41.19 Chapter 7 Ecology - "Assessment of Effects – During Restoration - Direct habitat loss" para 7.163 states:

*"Direct loss of habitats for southern damselfly will be an adverse effect. It is probable that the repairs to knickpoints and drain infill within mires in SSSI Units 44 and 28 will result in habitat loss as emergent and submerged vegetation will be removed. The extent of the effect will extend to isolated parts of suitable habitat, **although the effect will be reversible and temporary, particularly given the wider aim of the restoration.** Although the Study Area is considered to be of Regional value for the species, the proposed works will not affect all suitable habitat at the same time, as works will be staggered over 4 years. Indeed, as each stage is progressed, it is likely that the damselfly population will benefit from preceding restoration works in other areas of the catchment. Furthermore, since it is intended that the area of suitable habitat supporting the highest number of southern damselfly (i.e. transect 4) will not be subject to direct habitat loss, there will remain a viable source of individuals to 're-populate' these restored areas. Consequently, it is considered that **direct habitat loss will have a significant effect on southern damselfly at the site level**, as the design principles intrinsically protect the wider Study Area population through the phasing of works."*

41.20 As commented on para 7.163 above:

- It is **certain** that the infill at Thompsons Castle stream will result in the loss of Southern Damselfly habitat. Emergent and submerged vegetation will be removed and exuvia (in the bed for 2 winters) will be destroyed.
- Although the stream shows signs of previous deepening in parts, these channels provide important shelter for many invertebrates, reptiles and fish (including eels) which will be lost if the stream is infilled to a shallow depth. The justification for this is that it is important to remove nick-points which threaten the Mire which is clearly fallacious: the difference in altitude is much too great, and this is clearly a misleading "red herring".
- The effect will **not** be reversed if the techniques used at other sites and stated in the Method Statements are employed. It is **impossible** for the (southern) damselfly population to benefit from the preceding restoration works in other areas of the

catchment. The works proceed downstream from Islands Thorns which are totally unsuited habitats, and will remain so. Being very poor fliers, dispersal is very difficult even if suitable habitats exist. Thompsons Castle stream will be turned into an unstable sediment chute of hoggins, clay and ever larger stones due to the steep gradient of the straight stream. New knickpoints will rapidly appear. The conclusion is the design principles **do not** intrinsically protect the wider Study Area population through the phasing of works.

- Transect 4 **does** include a section - the east to west outflow - which has flourishing Southern Damselfly (and of possibly equal importance - Scarce blue-tailed) which overlap the re-routing of the main Latchmore channel at that point. It also includes a significant area of Pillwort - a recognised rare species in the Latchmore Rare Species Report 2012, but not identified in the EIA.

41.21 Mortality and disturbance

"7.165 Mortality and disturbance may occur as a result of the restoration works in SSSI Units 44 and 28, where knickpoints will be repaired and drains infilled. Mortality may also arise from vehicle movements during the restoration period, however as it is intended that these works will be completed in late summer / early autumn (i.e. August – September) which is outside the main flight period of adult southern damselfly, this is likely to only affect a small number of individuals and the locations with high numbers of southern damselfly will not be affected."

Mortality and disturbance **will also occur** in SSSI Unit 48 where the works move Latchmore Brook to the north along the east /west outflow from Latchmore Mire (east).

41.22 Proposed Mitigation – During Restoration

Southern Damselfly

7.210 *"Potential significant effects on statutory designated sites include direct habitat loss, mortality and disturbance. These effects will be mitigated via the following actions, in addition to the general measures:*

- *Works will be planned to minimise frequency, duration and extent of movements, particularly within SSSI Unit 44. Access routes within Unit 44 will follow previously used tracks wherever possible.*
- *Works will be timed to avoid the main flight period of adult southern damselfly*
- ***No works will be undertaken to Transect 4 (within relevant areas of SSSI Units 44 and 48) where the highest levels of breeding and activity were recorded."***

Timing of works to avoid the main flight period of adult southern damselfly does not take account of the effect on exuviae. Also as reported above - works are planned in and around the bottom of Transect 4. **These conditions are therefore wholly inadequate.**

7.211 " It is emphasised that, notwithstanding the incorporation of mitigation outlined above and subsequent assessment of no significant effect, there remains the potential for a small number of southern damselfly to be killed or injured as a result of the restoration works. For this reason it is considered likely that these restoration works will need to be conducted under licence from Natural England to ensure that an offence is not committed under the Wildlife and Countryside Act 1981 (as amended). All works directly affecting areas of suitable habitat for southern damselfly will be completed under the direct supervision of the licence holder and / or accredited agents."

41.23 Assessment of Effects - Post Restoration

Southern Damselfly

7.231 Post restoration, it is near-certain that the project will have a beneficial effect on the Southern Damselfly by increasing the amount of suitable habitat available within the catchment. Specifically, it is considered likely that the restoration measures proposed for SSSI Units 28, 44 and 50 will have the potential to inherently increase the suitability of the habitats present within these channels and SSSI Unit 43 for southern damselfly and thus have a **significant beneficial effect at the Local level**.

Bearing in mind the examples of the artificial stream beds created in other recent works, there is no evidence that any of the new meanders will create any additional habitat suited to Southern Damselfly, while suitable habitat in Unit 28 and in Unit 48 will be destroyed.

41.24 Mitigation and Residual Effects – Post Restoration

Table 7.13 Predicted Residual Restoration Effects

Potential Effect	Significance of Effect	Proposed mitigation /Enhancement	Significance of Residual effect
During Restoration Works			
Effects on Southern Damselfly	Significant at Site Level (Direct Habitat Loss and Mortality / Disturbance)	Minimise frequency, duration and extent of movements particularly within SSSI. Pre-works checks to be made by ECoW. Works to proceed under guidance if species present. No works to be carried out where highest breeding activity recorded.	Not significant
Post Restoration			
Effects on Southern Damselfly	Beneficial Significant Effect at Local Level	None Required	Beneficial Significant Effect at Local Level

41.25 The only possible conclusion is that the impact on Southern Damselfly has not been assessed correctly, by not taking the 2013 survey into account, and the significant harm which would be caused by the works methods and resulting unnatural outcomes. These issues are clearly evident from other recent works which should be assessed before making further predictions.

42. Fish

Baseline Surveys

42.1 Fish are a major indicator of the health of a stream such as Latchmore where the fish are already flourishing based on local observation. The EIA does not provide the necessary information in order to safeguard the fish population of Latchmore and the following issues need to be addressed before conclusions are drawn on the potential significant effects and whether any suggested mitigation procedures will be successful.

42.2 The baseline/survey data on fish are inadequate for the following reasons:-

- No data at all on Brook lampreys which are in immediate danger during the works as well as subsequently with the alterations in their habitat.
- No data on the presence of fish species in the tributaries - for example Eel have been observed in Thompsons Castle stream.
- The water quality data is in the majority irrelevant for a Forest stream, and the equipment used in some of the measurements is rudimentary and inadequate for a scientific study, which inevitably casts doubt on all of the data.

43. Fish - Significant negative effects not identified in the EIA

43.1 The observation of recent sites in rescuing fish, and the subsequent effect of the works on the fish population are not encouraging.

The issues below are set out by section from the EIA, with Questions or points that need addressing in **bold italics** :

43.2 ES Volume 1 main report

Chapter 7 Ecology

7.126 Species of particular ecological interest included brown/sea trout, European eel and bullhead.

What about Brook Lampreys which have been recorded in this stream?

43.3 Contamination

7.190 The risk of contamination from sedimentation or pollution is considered extremely unlikely as the design principles include the use of heather bales and silt booms to filter coarse sediment and pollution. Based on the designed-in features of the restoration works, contamination is considered to be a not significant effect.

The use of heather bales and silt booms to reduce contamination is completely inadequate, based on observations and experience of other restorations. Gill-breathing creatures are very sensitive to fine particulate matter in the water, and this contamination would not be prevented at all by some heather bales or silt booms since this problem persists for at least some months post-works. In addition, other sites used infill which had been washed with a detergent which polluted the stream for a considerable time (again still present some months post-works) and heather bales and silt booms would have no effect on this chemical contamination.

43.4 Direct Habitat Loss

7.192 Direct loss of fish habitat will be an adverse effect and it is certain that the effect will occur during the restoration works, primarily as fish are to be removed from the Brook. The habitats to be lost include suitable spawning habitat for species of conservation concern. However, given the nature of the works, the effect will be temporary and reversible, particularly as the restoration works will include the provision of alternative and increased spawning habitat. It is anticipated that the duration of the effect will be limited to the discrete periods of work over the 4 year programme, however this means that it will be a frequent occurrence.

There are serious issues here relating to spawning habitat:-

a Simply digging out the existing gravel substrate and placing it in a new shallow meander is no guarantee that returning migrating fish will use the new area, assuming it remains in a fairly stable state. The lack of tree cover and shallow water will give an inhospitable environment for fish.

b. The structure of the stream downstream of the spawning ground is likely to cause returning migrating fish major problems to even recognise their original environment and will interfere with location mechanisms.

c. Experience with other restoration works does not demonstrate alternative and increased spawning habitat, which is not simply the mechanical provision of some gravel, but also needs an environment which is rich in food supply for emerging fry. Also different fish species require different spawning substrates, which may not be obvious.

d. There is no mention of brook lamprey which have very specific spawning ground requirements in respect of stone size/substrate/silt/oxygenation/flow rate and temperature. They also like to spawn in shallow water which in the absence of riparian cover makes them extremely vulnerable to predation. Thus existing spawning grounds cannot simply be moved by a digger bucket.

43.4 Mortality/Disturbance

7.195 Fish rescue will be undertaken prior to works and as such no fish mortality or disturbance is anticipated during restoration. However, fish are likely to be disturbed temporarily during the fish rescue process, although this will be a short term disturbance and as such any effect is not considered significant.

How will the eels be rescued? Also how will lampreys be 'rescued', especially the juvenile forms which burrow into the substrate? Also, as an additional point, the characteristics of this substrate are critical (and well-documented)

http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=home.showFile&rep=file&fil=SMURF_lamprey.pdf

43.5 Contamination

7.196 Fish are to be rescued prior to works and placed a significant distance downstream to prevent them from returning to the site while restoration is ongoing. The risk of downstream contamination from sedimentation or pollution is considered extremely unlikely as the design principles include the use of heather bales and silt booms to filter coarse sediment and pollution. Based on the designed-in features of the restoration works, **contamination is considered to be not significant.**

This is simply a pious hope: based on direct observation of other projects, contamination will be a significant issue and the mitigation measures are completely inadequate.

43.6 Mitigation Measures

7.214 Potential significant effects on fish include direct habitat loss, which results as a consequence of the works themselves, in addition to the need to remove fish from the watercourse. It is not possible to mitigate these effects beyond the measures set out in the design principles, however it should be recognised that the operational stage of the project offers additional opportunities for fish by way of more stable, diverse and better connected habitat and resources

Creating a habitat that will cause significant negative effects and is not suitable to fish is unacceptable. Just digging out a stylised view of a good fish habitat is no guarantee that is what will be achieved, especially with the effects of weather events over time. Other recent restorations have shown this approach is naïve at best.

7.217 In summary, following the application of mitigation, there is only one residually significant effect that may occur when the restoration is being undertaken. This is in relation to the direct habitat loss for fish.

– **which will be permanent and significant**

43.7 Habitats

7.225 The restoration of the Brook to a more natural morphology will intrinsically be a beneficial effect on habitats and it is near-certain to occur, based on the success rates of similar projects within the New Forest.

No actual data on “the success rates of similar projects” is provided. Based on our observations of recent projects the statement should read ‘restoration ... to a more natural morphology is near-certain NOT to occur’.

44. Assessment of Effects Post-Restoration

7.235 Post restoration, it is near-certain that the project will have a beneficial effect on fish, increasing suitable habitat features and maintaining a surface flow in the upper reaches of the catchment for longer. The restoration aims to achieve a diverse natural channel morphology comprising pools, riffles and meanders, each of which will offer niche habitat for spawning, sheltering and foraging. The effects will be experienced by a species composition that includes species of particular conservation concern, thus it is predicted that the restoration will have a **significant beneficial effect on fish at the Local level.**

Direct Habitat Loss has already been stated as a consequence of the Restoration – point 7.217, but is ignored here. Also a diverse natural channel morphology already exists and cannot simply be achieved by digging a different watercourse – such features take a considerable time to develop with varying water flows, stream substructure and weather events.

Summary of Effects

7.240 During restoration works, significant adverse effects have been identified for a range of ecological features, however as the design process has built-in measures to reduce these effects. When additional, but straight-forward, mitigation measures are applied, all effects become not-significant with the exception of direct habitat loss for fish which remains significant at the site level.

Table 7.13 Predicted Residual Restoration Effects

Fish - No further mitigation possible but operational stage of project offers more stable and better connected habitat and resources for species of fish than currently found

The existing fish population is numerous, stable and in balance including a range of rare protected species. This statement is again simply an unsubstantiated assertion and clearly not based on any factual analysis.

45. Extracts from Appendix 7.6 Fish Survey

45.1 Electrofishing

standard quantitative three-run depletion technique was used within a stop-netted 100m section

Smith-Root LR-24 Electrofisher backpack electric fishing equipment with a pre-programmed output of 260V and 55Hz equating to a current of approximately 0.1A.

45.2 Water Quality

Dissolved oxygen and pH remained relatively constant over the study period with a mean DO content of 10.76 mg/l-1 (± 0.23) and pH of 6.28 (± 0.05). Rainfall resulted in a limited and short-term increase in DO and reduction in pH.

This confirms that this is an acidic stream with a very good dissolved oxygen – such water quality is unlikely to be achieved either during or more importantly post-restoration as the infill materials have significantly raised the pH in other restorations (FoL unpublished observations).

Page 26 Water temperature fluctuated over the study period. Results were affected by the time of day that the reading was taken. Mean water temperature was recorded as 10.31°C (± 0.58) with a maximum temperature recorded of 12.9 °C and a minimum temperature of 6.3 °C.

Page 31 The results suggest that brown trout and European eel are present in low densities in the upper reaches of the Latchmore Brook despite the regular cessation of flow in the summer.

Page 31 RECOMMENDATIONS

The presence of fish species of conservation importance (brown/sea trout, European eel and bullhead) should be considered in the project design and, in particular, the construction phase. The project has the potential to benefit those fish species present given a sensitive and judicious design with awareness of the importance of diverse habitat (both in terms of in-channel features and the riparian zone). Areas of deeper water like the pools found in riffle-pool sequences are of particular importance as is cover such as large woody debris and overhanging marginal vegetation.

None of these important considerations are in the project plans – in fact trees will be felled in significant numbers to allow access for construction machinery. Lampreys should also be considered.

******General note – improving connectivity between isolated stretches in dry weather is no benefit for fish if this involves shallow meanders devoid of tree cover, with alien gravels. Streams evolve and fish have survived well over countless years with the existing stream structure, as is demonstrated by the various fish surveys.***

46. Observations at other sites, recently completed indicate that the working methods employed do not always comply with the expected standards, while the likelihood of fish quickly returning to the new channel is risible. A more realistic description of the practical issues involved in carrying out these works with regard to the fish would be a first step to properly setting out the negative effects.

47. Butterflies

There is no sign of any reference to Butterflies or other Terrestrial Invertebrates other than Southern Damselfly and Stag beetle in the EIA.

47.1 Appendix 2.2 EIA Scoping Report Other species groups states :

"5.37 No surveys are proposed for the following ecological receptors

- *Small mammals.*
- *Terrestrial invertebrates.*

5.38 The habitats affected and likely to support these receptors represent common and widespread habitats in the local area, and where direct effects are predicted they represent a small proportion of the habitat type available in the wider area. As a result, the temporary disturbance of such habitats will not be expected to result in any significant changes in the composition or distribution of these species or groups within the Study Area or further afield.

5.39 Therefore, survey of these receptors is not considered appropriate for informing this EIA. Nevertheless, potential effects on these species/groups, for example in relation to disturbance during works, and the requirement for mitigation such as appropriate seasonal timing and phasing of works, will be addressed within the EIA."

There is no indication that any examples of such an assessment or analysis has been provided in the EIA.

47.2 As an example of what has been neglected:

A local recorder has been monitoring butterflies on a regular basis in the Latchmore area and has built up an important understanding of the populations and the potential effects of the proposed works which will cause damage to existing habitat adversely affecting butterflies in Latchmore.

For example, a large colony of Silver-Studded Blue butterflies is resident in the damp heather just West of the South-West corner of Alderhill Inclosure, and is likely to be damaged by heavy vehicles. Of more concern are two other species – Grayling and Small Heath.

The Grayling requires sunny, sandy patches among the heather, and is most active in August and September, exactly when the work is proposed to take place. **Use of existing paths and tracks by HGV's will damage Grayling habitat.**

The Small Heath is a formerly common butterfly whose numbers have plummeted in recent years. A small population survives in the short grass along the south side of Latchmore Brook. **The added disturbance of the proposed work could lead to the loss of the Small Heath from the immediate area.**

Another species of concern is the Silver-washed Fritillary, a butterfly which uses the rides and gravel tracks through the Inclosures. A population is resident around the wooden bridge in Alderhill, and **disturbance and added dust from vehicles could have an adverse effect on this population.**

48. Birds

48.1 Only two Bird Surveys were carried out for the EIA in 2014 & 2015 involving just 5 visits between February and May.

Chapter 7 Ecology Para 7.79 states:

"The desk study identified extensive records of bird activity within the Latchmore catchment, including species of conservation interest, including those associated with the SPA designation."

"Table 7.9 Birds of Conservation Concern recorded in 2014 and 2015 (Amber and Red species)"

lists 39 such species although there is little or no indication of the range or likely numbers affected, nor of all the other species which frequent the area.

48.2 The impact of the tree-felling which took place in 2011 is an indication of the serious negative effect on the birds along Latchmore Brook. Further tree-felling is planned along Unit 48, and the EIA fails to indicate any appropriate mitigation plans to encourage back those bird species whose habitat will be destroyed by the work.

Three species in particular are relevant - Kingfisher, Spotted Flycatcher and Redstart.

All three have consistently bred along the existing course of the Latchmore Brook, and the work proposed would destroy their nest sites.

The vertical and undercut banks which provide suitable opportunities for such birds to nest will be destroyed by the proposed works.

It is unacceptable that there are no detailed plans demonstrating how this habitat will be reinstated, otherwise the birds cannot return.

49. Reptiles

Chapter 7 Ecology para 7.7 states:

"Based on existing data, consultation and the findings of field surveys, certain species or taxa have been scoped out of this assessment. Similarly, due to the extensive size of the catchment, where it was possible to rely on the results of desk studies for the purposes of assessment, detailed surveys were not undertaken. These species/taxa are listed below, along with an explanation of their exclusion."

*"**Reptiles** – in discussion with NE, it was agreed that detailed reptile surveys would not be required. The New Forest is a stronghold for reptile species, particularly the smooth snake, thus it was determined that where suitable habitat was identified, it would be assumed that reptile species are present."*

This is an indication of the disregard for many fragile and important species in the New Forest, and there must be clear plans produced in the EIA to protect those species within the Latchmore area .

50. Rare species

50.1 Appendix 7.3 Habitats and Vegetation Baseline Report at Para 3.126 states:

" A report on the rare species of Latchmore Brook (in a regional and national context) has previously been produced (in 2012)¹⁵. This study focused on the areas most likely to be affected by the restoration works and its scope was based upon the Forestry Commission's New Forest rare plant database that is based, in turn, upon a number of rarity measures or lists (described in more detail within the report). The plants recorded and described in the rare species report include (by their vernacular and scientific names):

- *Cladonia callosa (a lichen);*
- *Cladonia rei (a lichen);*
- *New Forest Crowfoot (Ranunculus x novae-forestae);*
- *Petty Whin (Genista anglica);*
- ***Pillwort (Pilularia globulifera); and***
- *Royal Fern (Osmunda regalis).*

3.127 Although the known, local presence of these species was borne in mind during the course of the survey, none of them were encountered within the areas sampled."

50.2 Regular inspection by FoL members of the likely places for Pillwort has revealed that it is an important rare species found at Latchmore Unit. 48. These areas would be seriously affected by the proposed works and must be avoided.

51. Archaeology

Identifying, recording and preserving historic sites is a complex task.

Reports from other sites indicate that the processes employed by the Forestry Commission do not meet the standards required.

HAG have given detailed feedback on the Latchmore Restoration Planning Application focusing on Chapter 8 of the Environmental Statement. This concludes that of 283 relevant sites identified in the Assessment:

- 45% are wrongly recorded (wrong place, misinterpreted, or do not exist).
- 78 (27%) are correctly recorded and
- a further 28 require checking.
- 95 sites critical to interpretation and understanding are missing.

Systemic problems appear to exist in the FCs work on archaeology. HAG indicate that many of the sites are within the area of planned works which suggests historic records could be destroyed by the works or vehicles.

Poor fieldwork again suggests the EIA does not comply with planning policy CP7. The scale of errors is beyond the scope of any relevant Conditions.

52. Roads, verges, and properties, and other downstream effects

The EIA states that there will be no significant negative effects on the occupied areas downstream of the Open Forest. In addition there is no consideration of any impact on the River Avon, a highly protected SAC, SSSI, RAMSAR site in its own right.

52.1 **Issues which will affect these areas include(but not exhaustive):**

- The assessment that the effects of construction traffic are all minor or negligible is unrealistic in the conditions found in the New Forest using single track roads beside cob cottages, ponies, and cyclists;
- Potential flooding downstream remains a significant issue after importing 96,000 tonnes of hoggins and clay, a proportion of which will reappear downstream potentially affecting grazing and water resources; .

- There is no reliable evidence that flood flows will reduce, and the likelihood is that erosion of the unstable infill will increase sediment load causing more erosion further downstream.
- There is direct evidence from other sites such as Ditchend that there is considerable erosion of the infilling of New Forest streams after such works;
- the effects of sediment movement downstream of Ogdens have been left to be considered during monitoring - if it happens it will be dealt with - no contingency planning has been prepared
- A recent quote from Steve Avery in the Lymington Times - 30 July 2016 - "Natural England also routinely seek confirmation that no material will be imported on to the site (to avoid the establishment of any inappropriate species within the New Forest.)" raises the question of how 96,000 tonnes of imported hoggins and clay fit into that strategy ?
- The verges have SSSI status and must be protected.
- Pollution from 20 ton trucks carrying hoggins and clay will inevitably affect the routes taken when so much material is involved.
- Passing places for heavy vehicles delivering to Ogdens Car park will be required but have not been addressed. Indeed, these are likely to be totally impractical as vehicles are not allowed to use the verges. The Transport plan fails to protect verges in contravention of **CP2** The Natural Environment .
- Track outside Ogdens Farm is built on clay and sensitive to heavy vehicles and rutting in all seasons. The track will be impassable for non-4x4 vehicles. Mitigation after event will not solve problems for residents. The Transport plan fails to demonstrate high quality design. failing Policy **DP1** regarding General Development Principles.
- ES Volume 3 Appendix 4 - CMTP page 12 - Section 4.31 states that *"prior to leaving the catchment all vehicles will be inspected and washed to prevent mud and deposits on the public road."*
This is too vague and is not acceptable. Wheel washing of trucks will deliver silted and polluted water to Latchmore/Huckle's Brook and the SSSIs.
The impact of silted water on stock grazing is not addressed.
- The impact of non-geological or geophysically different materials (hoggins and clay) and their impact on local habitats is not addressed.
- Transport plan fails CP6 Pollution and DP2 Safeguarding and Improving water Resources
- No end state can be guaranteed with respect to the effects on springs and grazing pasture downstream of the works.

53. Recreation and tourism, and business

- The impact assessment (minor adverse, negligible, or minor beneficial - with no adverse effects) is entirely the opinion of the Consultants LUC. The recreation survey was limited to recording the "uses" of the area, and no information was collected on visitors, residents, commoners personal thoughts on the impact to them of the works - for example, due to partial infilling of the iconic Latchmore Shade braided channel.

- Local businesses are concerned that the impact on roads and tracks will impact cycling, walking and riding especially among family users during peak holiday season.
- The NF NPA and FC strategy to encourage access and enjoyment of the countryside is at risk.
- Ogdens Car Park will be closed for an unknown period according to the works schedule. Latchmore Shade/Ogdens Car Park is a key destination for tourists but will be closed for a full season.
- Tourists will be discouraged and visit other areas. It is unlikely that they will use Abbotswell as an alternative but will attempt to park on the verges.
- Parking on the verges will impact on the SSSI and undo work of local teams on Verge Restoration.
- Impact on highly sensitive local businesses could lead to business closures and loss of employment.
- A full socio-economic review should have been undertaken
- The EIA envisages replacement of a number of bridges used by walkers and cyclists, by fords. This prevents access to the New Forest F by young families and disabled which is against the NF NPA strategy
- Plan fails policies
- There is no cost - benefit analysis.
- A 15mph speed limit is a positive step but impact on stock will also be significant.

'Friends of Latchmore'

2 September 2016