

BLACK SLUICE INTERNAL DRAINAGE BOARD

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Date: 22nd April 2015

To all Culverts and Bridges Committee Members

Dear Member

Culverts and Bridges Committee Meeting - 29th April 2015 at 2pm

Please find enclosed the papers for the Culverts and Bridges Committee Meeting to be held at the Board's offices on Wednesday, 29th April 2015 commencing at **2pm**.

Yours sincerely

Chief Executive

A G E N D A

1. Apologies for absence.
2. Declarations of interest.
3. To receive and if correct sign the Minutes of the Culverts & Bridges Committee Meeting held on the 10th July 2014 (pages 1 - 5).
4. Matters arising.
5. To review the Culvert and Bridges Replacement Policy (pages 6 - 9).
6. To review a presentation of the culvert inspection records.
7. To review the ultra violet culvert re-lining process.
8. To review the bridge replacement process.
9. Any other business.

BLACK SLUICE INTERNAL DRAINAGE BOARD

MINUTES

of the proceedings of a meeting of the Culverts & Bridges Committee

held at the offices of the Board on
10th July 2014 at 10am

Members

Chairman - * Mr K C Casswell

* Mr W Ash	* Mr V A Barker
* Mr J G Fowler	* Mr R Leggott
* Mr P Robinson	

* Member Present

In attendance: Mr I Warsap (Chief Executive)
Mr P Nicholson (Operations Manager)
Mr M Rollinson (Guest – Vice Chairman Southern Works)

584 **APOLOGIES FOR ABSENCE**

Apologies were received from Mr P Holmes (Vice Chairman Northern Works).

585 **DECLARATIONS OF INTEREST**

There were no declarations of interest.

586 **MINUTES OF THE CULVERTS & BRIDGES COMMITTEE MEETING**

Minutes of the last meeting held on the 25th September 2012, copies of which had been circulated, were considered and it was agreed that the following amendment be made:

List of Attendees;

Mr J G Fowler sent his apologies remove * as attended.

With the above amendment it was agreed the Minutes should be signed as a true record.

587 **MATTERS ARISING**

(a) **Construction of Culverts - Minute No 237(a)**

The Chief Executive presented a slide detailing the material costs of pipes using twinwall and concrete.

Twin wall is favoured due to ease of placement, pipes can be picked up by the workforce and guided down the bank with ease.

587 (a) Cont.....

The larger/heavier concrete pipes require a crane to lift the pipes into position and some locations are restrictive due to the cranes access requirements. The twinwall is competitive in price when compared to the concrete plus crane.

Box culverts quotations due to the fluctuating price of steel and concrete can only be held for two weeks.

The Chief Executive stated that at the quotation stage of a culvert replacement all culvert options are investigated.

(b) Review of Culvert & Bridge Replacement Policy - Minute No 239

Mr Leggott made the suggestion that for a culvert which is used by the Board and is due to be replaced should there be a sub paragraph stating "before any work commences the watercourse adjacent to the culvert will be cleared and a water level investigation carried out into water flows".

The Chief Executive recommended that this be considered as part of Agenda Item 4.

(c) Brick Arch Bridges on Hammond Beck and Risegate Eau constructed in the 19th Century - Minute No 240(a)

The Chief Executive stated that he had tried to communicate with English Heritage regarding the culvert at Slippery Gowt and found the department to be difficult to deal with.

It has come to light that a private existing brick arch located in Bourne Fen which is in a better condition and also has a vertical gate sluice (which belongs to the Black Sluice IDB) adjacent to the bridge would be a better option than the two previously identified. Mr Ash stated that there is a second brick arch adjacent to it which could also be a better option. The Committee agreed that as a heritage project this would show that we are "looking after the past".

The Chief Executive will investigate further and report at the next meeting.

588 REVIEW OF CULVERT AND BRIDGE REPLACEMENT POLICY - Agenda Item 4

(a) The Committee discussed the policy and the following amendments were made:

1. PURPOSE

The following word be added:

"culvert or bridge deteriorates to such an extent that it is unable to convey the necessary flow in the drainage channel or if it becomes unsafe for either vehicle or pedestrian traffic to cross the watercourse."

6.6 ACCESS CULVERTS ONLY USED BY THE OWNER

The paragraph should be amended to:

“If a culvert is substandard and in need of reconstruction it should be removed by the Board.

Provided there is a proven need for a culvert at this location, the landowner should be offered the opportunity for the Board to replace the culvert if a contribution of 50% of the cost of a 900mm diameter culvert (at present 50% of £7,000) is paid.

After the culvert has been reconstructed it will be deemed the responsibility of the landowner for its maintenance.”

6.8 STANDARD CONTRIBUTION CHARGE

The paragraph should be amended to:

“The standard contribution charge is defined as 50% of the cost of construction of a 900mm diameter culvert 12.0 metre long.”

6.9 REDUNDANT CULVERTS

The paragraph should be amended to:

If the Board agrees with an Owner or Occupier that a culvert is redundant the Board will remove the culvert and backfill material and deposit these materials on the field adjacent to the location of the culvert.

If agreed and required the Board will dispose of the excavated material.

(b) Culverts & Bridges Meeting Dates

The Committee discussed the frequency of meetings and AGREED that the Committee should meet at least once in every 12 month period. For any additional agenda items requiring review a Committee meeting can be convened.

589 REVIEW THE BUILD UP COSTS OF CULVERT REPLACEMENTS - Agenda Item 5

The Chief Executive presented a slide detailing the costs comparison between Polypipe Ridgiform and Weholite pipe. It is recommended that the Board continue with Polypipe as the better product, the two systems cannot be combined as they have different connectors.

The Chief Executive explained that in an extended dry season the pipe that is exposed could be susceptible to fire.

590 REVIEW THE CULVERT INSPECTION RECORDS - Agenda Item 6

The Chief Executive stated that teams of two staff have carried out inspections recording data to state the condition of culverts, including wooden bridges.

The Chief Executive presented slides of the results by catchment area and highlighted that not as many culverts are in "poor condition" as was previously thought.

The Chief Executive stated that Welland & Deeping IDB are experimenting with an ultra violet sleeve to line the pipe. He will arrange to contact the contractors to obtain quotations for some.

The Chief Executive was asked if Lincolnshire County Council have a similar process for inspecting culverts under roadways. He responded that currently not in line with our inspection criteria, if any culverts under roadway are identified as poor during our inspections LCC will be made aware of them.

591 REVIEW THE IDB LAND DRAINAGE ACT ENFORCEMENT & CONSENT CONCORDAT - SECTION 21 REPAIR RIPARIAN WATERCOURSES, BRIDGES ETC - Agenda Item 7

The Chief Executive stated that ***** has been appointed by the Lincoln IDB's on a three day week and his sole purpose is riparian issues and extended area consenting. He has put together these guidelines and the process for letters to be sent to Landowners identifying the issues and assistance that can be offered.

The Chief Executive stated that currently Black Sluice has two areas that fall into this area of enforcement, the Planning Officer met with ***** on these two issues stating that before serving notice to contact ***** (Legal Team on Lincolnshire County Council) to clarify the timescales. Before taking enforcement action the onus is on Black Sluice to provide evidence of a "nuisance, ie flooding or land flooded caused by obstruction and or blockage". Therefore until it rains and photographic evidence can be obtained nothing more can be done.

The Chief Executive stated that Lincolnshire County Council Highways have recognised the Riparian issue through their flood group meeting. ***** is running this department and he would be interested in presenting to the Board Members at the next meeting.

592 ANY OTHER BUSINESS - Agenda Item 8

(a) Northgate to West Pinchbeck drainage improvements with 30 culverts, to start at Money Bridge Lane

Mr Barker questioned the number of culverts along this watercourse. The Operations Manager stated that after negotiations with landowners to encourage shared access he has managed to reduce the number by seven. He added that it will be completed in phases over a number of years.

There being no further business the meeting closed at 12:10 pm

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CULVERT AND BRIDGE REPLACEMENT POLICY

1. PURPOSE

This document sets out the policy of the Black Sluice Internal Drainage Board concerning the repair or replacement of culverts or bridges where the structure of the culvert or bridge deteriorates to such an extent that it is unable to convey the necessary flow in the drainage channel, or if it becomes unsafe for either vehicle or pedestrian traffic to cross the watercourse.

In the first instance, if a culvert has deteriorated to such an extent that it is holding up the flow of water, then the culvert shall be removed by the Board.

2. INTRODUCTION

The structures that will be included in this policy include:

- a) Clear span bridges constructed to take all types of vehicles
- b) Clear span bridges for pedestrian use only
- c) Culverts constructed to provide access across the watercourse.
- d) Culverts constructed for the purpose of maintaining the flow in watercourses where there is instability to the banks.

3. BLACK SLUICE POLICY

This policy is concerned with the replacement of existing culverts and bridges only.

The Board has a separate policy which addresses applications to place new culverts in watercourses. The policy concerning culverting discourages the construction of new long lengths of culverts in Board's Watercourses.

4. REASONS FOR THE POLICY

The policy formalises the baseline conditions above and gives written guidelines for more specific instances. The benefits of the policy are:

- Fairness and uniformity in Owners and Occupiers contributing to the cost of reconstructing sub standard culverts.
- The provision of clear guidelines to Owners and Occupiers.
- Powers are delegated giving a more efficient and timely service

However this policy is not intended to cover every eventuality and the Board (in formal meeting) may waive the policy and make a determination on the basis of reasonable fairness to all parties.

5. DELEGATED POWERS

Delegated powers are given to the Chief Executive and the relevant Works Committee Chairmen to reconstruct culverts as long as the budgets are not exceeded and the landowner or occupier pays a contribution towards the cost in line with the guidelines in this policy. In all other cases, the power to determine applications is delegated to the Culverts and Bridges Committee, the appropriate Works Committee or the Executive Committee, unless a Board meeting is more timely.

6. GUIDELINES

Guidelines are given below on the following types of culverts and bridges:

- a) Clear span bridges carrying Highways maintained by LCC
- b) Clear span bridges capable of carrying all vehicles
- c) Clear Span Footbridges
- d) Culverts under Highways maintained by LCC
- e) Culverts Used for Access by both the Board and the Occupier
- f) Access culverts that are solely for the benefit of the Owner or Occupier
- g) Culverts constructed by the Board to allow free drainage of the land.

6.1 CLEAR SPAN BRIDGES CARRYING HIGHWAYS

It is generally the case that all clear span bridges carrying LCC highways are owned and maintained by LCC. If replacement is required because the structure is substandard then LCC will be responsible for the total cost of the reconstruction.

6.2 CLEAR SPAN ACCESS BRIDGES

These in general provide access for farm machinery to fields or to individual properties. They are mostly constructed in large watercourses.

These in general will not be used by Board's machinery to gain access to the opposite side of the watercourse.

If refurbishment or replacement is required because the structure is substandard, then the Owner or Occupier will be responsible for the total cost of the reconstruction.

However, if a substandard structure is used by the Board, and the Owner or Occupier of the structure proposes to refurbish or reconstruct the bridge, the Board may offer a contribution towards the cost of this work.

6.3 CLEAR SPAN FOOT BRIDGES

It is generally the case that all clear span footbridges which carry footpaths over Board's watercourses are owned and maintained by LCC. If replacement is required because the structure is substandard, then LCC will be responsible for the total cost of the reconstruction.

6.4 CULVERTS UNDER HIGHWAYS

It is generally the case that all culverts under LCC highways are owned and maintained by LCC. If replacement is required because the structure is substandard then LCC will be responsible for the total cost of the reconstruction.

6.5 CULVERTS USED FOR ACCESS BY THE OWNER AND BY THE BOARD

These culverts are required by the Board as well as the landowner to gain access for maintenance of watercourses.

The cost of any reconstruction of substandard culverts in this category will be paid for by the Board and the culvert will remain as a structure to be maintained by the Board.

6.6 ACCESS CULVERTS ONLY USED BY THE OWNER

- a) These culverts are only required by landowners to gain access to their land.
- b) If a culvert is substandard and in need of reconstruction it should be removed by the Board.

Provided there is a proven need for a culvert at this location, the landowner should be offered the opportunity for the Board to replace the culvert if a contribution of 50% of the cost of a 900mm diameter culvert (at present 50% of £7,000) is paid.

After the culvert has been reconstructed, it will be deemed that the landowner will be responsible for its future maintenance.

- c) Before any consideration is given to the reconstruction of the culvert, the landowner should be approached to ascertain if there is a future need for the structure. Consideration should be given to removing two or more accesses into a field and the provision of one in the future.
- d) If there is a proven need for the culvert, then the Board will reconstruct the culvert on condition the standard contribution is paid. The definition of the standard contribution is in Clause 6.8.

The culvert shall be constructed with a top width of 6.0 metres. If a landowner requests a culvert with a wider top width, then he shall pay for the total extra cost of this work.

- e) If a culvert has been constructed in the Board's watercourse, and there is clear evidence that the Board has written to the landowner confirming the future maintenance arrangements, then the landowner shall be totally responsible for the reconstruction of the culvert.
- f) If a culvert is removed by the Board because it is holding up the flow of water, and has not been replaced by a new culvert within a period of five years, then the offer of contribution will no longer be applicable and the landowner will be required to pay the full cost of the construction of a new culvert at this location.
- g) After the culvert has been replaced, the landowner will be responsible for any future maintenance or reconstruction of the structure.
- h) If the Board undertake a watercourse improvement scheme which includes the reconstruction of culverts, the Board will pay the total cost of the reconstruction of the culvert, but the landowner will be required to be responsible for the future maintenance of the structure.

6.7 CULVERTS USED FOR FREE DRAINAGE

Examples of these lengths of culverts are:-

- Lengths of watercourse culverted instead of undertaking revetment works
- Lengths of watercourse culverted to allow disposal of excavated soil.

These are the Board's responsibility, and any reconstruction required will be paid for by the Board. Responsibility for the future maintenance of the pipe will remain with the Board.

6.8 STANDARD CONTRIBUTION CHARGE

The standard contribution charge is defined as 50% of the cost of construction of a 900mm diameter culvert 12.0 metres long.

6.9 REDUNDANT CULVERTS

If the Board agrees with an Owner or Occupier that a culvert is redundant, the Board will remove the culvert and backfill material and deposit these materials on the field adjacent to the location of the culvert.

If agreed and required the Board will dispose of the excavated material.

6.10 FURTHER GUIDANCE

If a landowner is unhappy about the circumstances of a particular culvert designation, then this should be referred to the Culvert & Bridges Committee for final determination.

Revised 22 December 2014