

# Development Management Sub Committee

Wednesday 24 September 2014

**Application for Planning Permission 14/01810/FUL  
At Proposed Flood Defences - Burdiehouse Burn,  
Moredunvale Road, Edinburgh  
Development of flood defences including erection of a flood  
wall structure, replacement of residential access bridge and  
ancillary works together with landscaping and associated  
works at land at Nether Craigour/Upper Craigour, Edinburgh.**

Item number	6.1
Report number	
Wards	A16 - Liberton/Gilmerton

## Summary

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The principle of the proposal, the off-site flood prevention works for the new Sick Children's hospital, has been established in existing planning permissions 11/02454/PPP and 14/00078/AMC and the proposed flood prevention works are acceptable. The off-site flood defences work will protect the neighbouring properties of the new hospital and the new hospital itself. There will be no impact on neighbouring amenity and there are no expected equalities or human rights issues.

## Links

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<a href="#">Policies and guidance for this application</a>	LPC, CITD1, CITE8, CITE9, CITE12, CITE15, CITE16, CITE17, NSG, NSGD02,
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# Report

## **Application for Planning Permission 14/01810/FUL At Proposed Flood Defences - Burdiehouse Burn, Moredunvale Road, Edinburgh Development of flood defences including erection of a flood wall structure, replacement of residential access bridge and ancillary works together with landscaping and associated works at land at Nether Craigour/Upper Craigour, Edinburgh.**

### **Recommendations**

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1.1 It is recommended that this application be Granted subject to the details below.

### **Background**

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#### **2.1 Site description**

The application site is the Burdiehouse Burn between Old Dalkeith Road and Liberton Golf Course on Moredunvale Road.

The Burdiehouse Burn flows through the Liberton Golf Course, runs parallel to Moredunvale Road, and is to the rear of Nether Craigour. The Burn flows into the Royal Infirmary of Edinburgh (RIE), near the cottages at Little France Mills, and becomes the Niddrie Burn at this point. It then flows through Greendykes and onwards into Niddrie. Both the Burdiehouse and Niddrie Burns previously crossed the site of the RIE in separate channels and were diverted into a single channel around the current footprint of the hospital prior to its construction. Trees, shrubs and vegetation line the embankment of the Burn and there are also some gabion baskets.

A bridge crosses the Burdiehouse Burn from Moredunvale Road into Nether Craigour and a small grass area lies between Nether Craigour and Old Dalkeith Road. A path crosses the grass area to connect Moredunvale Road and Nether Craigour with Old Dalkeith Road.

Burdiehouse Burn is a Local Nature Reserve and the neighbouring Liberton Golf Course is in the Green Belt. Protected open space sits between the tower blocks of Craigour Green and Craigour Drive and Moredunvale Loan.

The immediate surrounding area is mainly residential with other uses found in the wider area, including open space, shops and a hospital. Moredunvale Road is a suburban road and Old Dalkeith Road is a main thoroughfare and the key route to the RIE.

## **2.2 Site History**

16 December 2009 - a proposal of application notice approved for reprovision of the Royal Hospital for Sick Children and associated expansion of the Royal Infirmary of Edinburgh and public transport variations (application number 09/03140/PAN);

13 May 2011 - planning permission granted for a 464 sq m single storey extension to existing University of Edinburgh Chancellor's Building to form a Neurology Clinic (application number 11/00799/FUL);

5 April 2012 - planning permission in principle granted for erection of Children's Hospital including department for clinical neurosciences and ancillary facilities (application number 11/02454/PPP);

4 June 2012 - permission granted for development of revised access and public transport arrangements, associated car park remodelling, public realm works and landscaping (application number 12/00479/FUL);

29 October 2012 - permission granted for the relocation of the existing Vacuum Insulated Enclosure (VIE) and affected car parking area and associated works (application number 12/03010/FUL);

6 February 2014 - permission varied for a non-material variation to amend the layout of car parking, carriageways, and footways to the east of the hospital (application number 12/00479/VARY);

10 April 2014 - application approved for Approval of Matters Specified in Conditions in relation to Condition 1(i) of application 11/02454/PPP in respect of erection of Children's Hospital including department for clinical neurosciences and ancillary facilities (relating to flood prevention works) (application number 14/00078/AMC);

28 August 2014 - permission granted for new Royal Hospital for Sick Children, Children's Accident + Emergency Dept, Dept of Clinical Neurosciences, Children + Adult Mental Health Service Unit. Works include heli-pad, energy centre, service yard, disabled, parent + child parking, hard + soft landscaping, internal + external landscaped courtyards (application number 14/01796/AMC); and

9 May 2014 - application received for landscape and parking proposals on the site of the former crèche and petrol filling station associated with the re-provision (application number 14/01797/FUL). Approved at Development Management Sub Committee on 27 August 2014 subject to a legal agreement.

### **Other Relevant History**

23 December 2004 - outline planning permission was granted for the development of up to 133,525 square metres of biomedical research uses on a 27 ha site to the south (application number 02/04372/OUT);

22 March 2006 - planning permission was deemed to be granted for a public transport link connecting Craigmillar and the RIE on land to the east (application number 04/02469/CEC);

26 May 2010 - planning permission granted for the creation of a surface level car park containing 1127 spaces together with access and landscaping (application number 10/00320/FUL) on land to the east of the RIE campus designed to accommodate future hospital development on car park B; and

23 August 2010 - planning consent was granted for the Niddrie Burn Restoration Project on land to the south and east (application number 08/02474/FUL).

## **Main report**

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### **3.1 Description Of The Proposal**

The proposal is for flood defences and the erection of a flood wall.

The proposed flood defences form the off-site works required for the construction of the new Royal Hospital for Sick Children and Department for Clinical Neurosciences. The on-site flood defence works were approved in April (planning application 14/0078/AMC) and are currently under construction.

These currently proposed flood defence works are part of the flood defences required to protect the new Royal Hospital for Sick Children from the risk of being flooded and to protect nearby properties from being at risk from flooding. The flood defences on the hospital site have already been approved and the construction work has commenced. The current proposals will provide flood defences for the properties at Little France Mills, Nether Craigour and Moredunvale Road.

The walls will be erected on both sides of the Burdiehouse Burn between Old Dalkeith Road and Nether Craigour bridge and Nether Craigour bridge and Liberton Golf Course (at Moredunvale Road). The walls will be between 0.8m and 1.7m high.

The existing trees and shrubs will be removed to enable the works to take place and new tree planting and landscaping will be installed.

#### Scheme 2

Scheme 2 has enhanced landscaping along the banks of the burn, replacing the proposed gabions with a planting shelf. The walls now proposed will be stone effect concrete panels in a buff colour with handrails provided at some places. The replacement bridge at Nether Craigour is no longer proposed and the channel will not be widened at the bridge. A low level weir is to be provided and the exact location is to be agreed with SEPA and CEC. The silt traps have been repositioned. A flood gate is proposed on the right bank upstream of Nether Craigour.

#### Scheme 1

The existing Nether Craigour bridge was to be replaced with a new bridge with a longer span over the river channel and the river at this point was to be slightly widened. The replacement bridge is no longer proposed. The walls were to be concrete and gabions were proposed along some parts of the embankment.

The following supporting information has been submitted and is available to view on the Council's web site:

- Addendum Flood Management Scheme;
- Summary Addendum Statement;
- Arboricultural Report;
- Ecological/Habitat Survey;
- Landscape and Visual Impact Assessment;
- Landscape Design Statement;
- Flood Wall Finishes Statement;
- Flood Defence Works Public Information Update;
- Off-site Flood Defence Works Chart (Programme);
- Construction Environmental Management Plan; and
- Statement in relation to Construction Phase;

### **3.2 Determining Issues**

Do the proposals comply with the development plan?

If the proposals do comply with the development plan, are there any compelling reasons for not approving them?

If the proposals do not comply with the development plan, are there any compelling reasons for approving them?

### **3.3 Assessment**

To address these determining issues, the Committee needs to consider whether:

- a) the proposal is acceptable;
- b) the proposed flood prevention works are acceptable;
- c) there is any impact on neighbouring amenity;
- d) there are any other material planning considerations;
- e) there are any equalities or human rights impacts; and
- f) the public comments have been addressed.

#### **a) Acceptability of Proposal**

The principle of the works for flood prevention measures has been established in the existing planning permissions 11/02454/PPP and 14/00078/AMC. The PPP permission, for the proposed Royal Hospital for Sick Children, approved the principle of flood works both on-site and off-site. The detailed on-site flood defence work was approved in permission 14/00078/AMC.

The principle of the proposal, which relates to the off-site flood defence works, is acceptable.

b) Flood Prevention Works

Prior to the construction of the new Royal Hospital for Sick Children and the Department for Clinical Neurosciences on site there is a need to raise the standard of flood protection up to a 0.1% (1:1,000) flood level. The flood defence work is in two phases. SEPA has already commented on Phase 1 (planning application 14/00078/AMC).

The revised Phase 2 scheme forms part of the overall flood management scheme to provide protection to the new Royal Hospital for Sick Children and the existing Royal Infirmary of Edinburgh up to a 0.1% AEP (1: 1,000) flood event. The Phase 2 scheme will also provide flood protection to properties in the Nether Craigour, Moredunvale Road and Little France Mills areas up to a 0.5% AEP (1:200) flood event including allowance for climate change. It is estimated that flows will currently overtop the banks at Nether Craigour when flows exceed the 3.3% flood event. Floodwaters overtopping the channel at this location will flow across Old Dalkeith Road and pond in the Little France Mills area.

The revised information indicates that it is now proposed to improve the conveyance capacity of the channel immediately downstream of Old Dalkeith Road by lowering the right bank to create a 2-stage channel. This location is currently a pinch point on the watercourse causing water levels upstream to back-up. The proposed river engineering works will lower flood levels in this area and upstream. Remodelling of the channel with this improved conveyance indicates that it will now no longer be necessary to replace the existing Nether Craigour bridge due to the generally lower flood levels.

Currently silt, gravel and other debris tend to drop out in the area upstream from Nether Craigour bridge due to the gentler gradient of the stream bed and reduced flow velocities at this location. To reduce the amount of material that might deposit under and around the bridge, the consultant has proposed to install a weir 200 metres upstream of the bridge which would act as a silt trap. The weir would be located in an open area where it would be easy to access with machinery to remove trapped material and reduce the frequency of similar activity at Nether Craigour bridge. In terms of flood risk, SEPA is satisfied, based on the information submitted, that the proposed weir and the improved channel improvements immediately downstream of Old Dalkeith Road should reduce the rate of deposition in the vicinity of Nether Craigour bridge. SEPA has advised that it has no objection to the development of the proposed flood defences on flood risk grounds.

Based on this updated information provided by the applicant's consultants, SEPA has concluded that the current flood risk to Nether Craigour, Moredunvale Road, Old Dalkeith Road, Little France Mills areas and the site of the new Royal Hospital for Sick Children and Department for Clinical Neurosciences will be significantly reduced by the proposed scheme.

Regarding water quality, SEPA has advised that the construction of the weir will also require authorisation under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR). Further information will be required in relation to the design of the weir, justification of the weir's location and further justification as to why the necessary sediment management cannot be carried out at the Bridge (where sediment currently occurs).

Flood Prevention has advised that it can recommend approval of the planning application. However, it stated that there are a number of issues requiring clarification including the location of the silt trap, location of the proposed trash screen, position of the proposed flood gate, position of outfall and gradients of surface water pipelines and technical approval to changes (to the parapets) for Nether Craigour bridge from the Council. Therefore, a condition is recommended requiring the additional details regarding the silt trap, trash screen, flood gate and the surface water pipelines. An informative is also recommended requesting information on the construction method and requirement for technical approval.

Several of the letters of representation raised concerns regarding the protection of the properties at Little France Mills and commented on both this current application for the off-site flood defences and the on-site flood defences (permission 14/00078/AMC) currently under construction. The concerns regarding the impact on Little France Mills related to both the on-site and off-site flood defences. The issues raised included the ground water levels, at Little France Mills, the impact on the water table and ground water saturation. Comments were also made on the phasing of the work, i.e. that the off-site works (the current proposal) should have been constructed first, before the on-site works.

As planning authority the Council can only consider the planning application which is submitted. However, the Council as the flood prevention authority, has previously reviewed other solutions which were not considered viable. These include a upstream storage and flood bypass channels.

The City of Edinburgh Council is responsible for flood prevention in the city and in this capacity it has fully assessed the proposed flood defences based on the information provided by the applicant's consultants (ARUP).

Trees and shrubs along the Burn will be felled to enable the works to be carried out. Following the completion for the works, replanting will take place along the Burn. The loss of trees was raised in a letter of representation. The revised landscape plan submitted in Scheme 2 introduces a planting shelf on the embankment of the Burn and removes the need for gabions. This will enable soft landscaping and planting to be installed rather than the hard landscaping of the gabions. The removal of the gabions and the introduction of the marginal shelves is an improvement secured in Scheme 2. A condition is recommended requesting a landscape maintenance plan over 5 years for monitoring. In addition, a condition is recommended to ensure that the proposed landscaping is established on site.

The proposed wall along Moredunvale Road will replace an existing fence and some hedging. The wall will be around 1.0 metre high, although it will increase to 1.7m at the north west corner of the roundabout at Moredunvale Road and Nether Craigour.

The height of the wall at this point is crucial to prevent overtopping of the wall if a 1:200 year flood event were to occur. In this context, the small section of wall at this height in this location is acceptable. The proposed finish of the walls in a buff concrete is acceptable in the context of the variety of materials used in the surrounding area.

The flood prevention works are acceptable.

c) Neighbouring Amenity

The impact of the proposed flood prevention works and risk of flooding on properties, particularly those in Little France, was raised in the letters of representation.

The supporting information provided by the applicant demonstrates that the flood risk to properties in Nether Craigour and on the nearby sections of Moredunvale Road and Upper Craigour will not be increased due to the proposed flood defence works. The Area of Importance for Flood Management on the piece of land at the south eastern tip of Liberton Golf Course next to Moredunvale Road and Nether Craigour does not extend to the nearby properties in Nether Craigour, Moredunvale Road or Upper Craigour and will not be affected by the proposed flood defences for this part of Burdiehouse Burn.

Regarding the properties at Little France Mills, the risk of these properties being flooded should not be increased by the proposals. The flood defence works currently under construction are to protect the hospital and are not to protect the cottages at Little France Mills or the properties in Nether Craigour. The flood defence works that are the subject of this application are to offer protection from flooding to Little France Mills and Nether Craigour. Both the on-site and off-site flood works are required to protect the hospital and the neighbouring properties. The relationship between the two flood defence schemes is fundamental to provide adequate protection from flood risk for both the neighbouring properties and the new hospital. The impact of the on-site flood defence works in planning application 14/0078/AMC has already been assessed and to protect Little France Mills until the off-site works are completed, a temporary cut will be inserted into the embankment/walls at Niddrie Burn next to Little France Cottages. This will let the water flow away from the properties. The temporary cut in the flood embankment at the burn, approved in application 14/00078/AMC, will enable flood water to move away from the Little France Mills cottages, therefore reducing the height of flood levels and the duration of flooding at the cottages. This will contribute to the safety and protection of residents and properties of Little France Mills by reducing the impact on neighbouring amenity.

The construction of a sheet pile flood defence wall around the north boundary of the Little France Mills residential area and along the Niddrie Burn at Nether Craigour has raised concerns in relation to the potential effect on groundwater. There is limited available information on the natural groundwater regime in the wider Little France Mills area and the natural flow of groundwater is not known in detail. It is not normal practice for the Council to require detailed groundwater assessments for flood defence works. Based on the information available it is assumed that groundwater would tend to flow naturally towards the lower lying areas around the existing watercourse. Groundwater readings from boreholes carried out in the vicinity of the Niddrie Burn indicate that the natural groundwater table may actually lie within the alluvial deposits around 4 to 6m below the bed level of the Burn.

Although the construction of the sheet pile flood defence wall to the north of Little France Mills may inhibit the flow of groundwater towards the RIE site, the flood defences do not present a continuous barrier between the residential properties and the Niddrie Burn. There is a clear "gap", approximately 30m wide, present between old Dalkeith Road bridge and the sheet pile wall around the RIE site where sheet piles will not be installed. On the basis of the information available, it is assumed that if there is a natural flow of groundwater within the permeable alluvial deposits towards the Niddrie Burn that this flow would continue to take place through the "gap". Although the extent to which the available width of the "gap" may affect groundwater flow in comparison with the previous situation is not known, it is considered that the provision of the gap represents a reasonable measure at this stage to alleviate potential groundwater issues arising in the little France Mills area.

There are no overshadowing or daylighting issues caused by the proposals. Due to the low height of most of the wall, there will not be any loss of daylighting to neighbouring properties. The highest part of the wall, at 1.7 metres, located at the roundabout at Moredunvale Road/Nether Craigour will cause the greatest amount of overshadowing and all of this overshadowing will fall on the public road or onto the verges/embankment of the Burn. The wall running parallel to the properties in Nether Craigour will be between 0.8m and 1.2 metres high with most of the overshadowing being negligible. The highest part of this wall, 1.2m, will be parallel to the car park and, therefore, will not cause overshadowing to the properties or loss of daylighting to windows.

The proposal will not have a detrimental impact on neighbouring amenity.

d) Other material planning considerations

Archaeology

The City's Archaeologist has advised that the stretch of burn lies directly upstream from the historic Little France Steading and Mill. Historical maps show that a bridge and well were found at the section affected by the proposed works. Therefore, the application site is identified as occurring within an area of archaeological potential. Ground-breaking works associated with the construction of the flood defences could disturb remains which could evidence for the date and form of the canalised burn plus earlier 18th /19th century bridge. A condition is recommended to ensure that no development takes place until the implementation of an archaeological programme of works has been secured.

Transport

Transport Planning has advised that it has no objections to the application subject to conditions or informatives being attached relating to the road works.

Environmental Assessment

Environmental Assessment has advised that it has no objections to the application. An informative is recommended regarding the Construction and Environmental Management Plan (CEMP).

## Biodiversity

The site is part of the Burdiehouse Burn Local Nature Conservation Site and has the potential to support protected species. It was surveyed for evidence of use by European and UK protected species and no evidence was found of use by otter, bats and badgers in particular. Therefore, there is no reason in relation to protected species that this application should not be given consent.

It is recommended that all works be carried out in accordance with the Construction Environmental Management Plan submitted as part of the application and an informative relating to this is recommended to be attached to the permission.

Japanese Knotweed was found to be present on site and details of its proposed removal should be provided for the approval of the Head of Planning and Building Standards prior to works commencing on site. Therefore, an informative relating to the removal of invasive species, Japanese Knotweed, is also recommended.

### e) Equalities and Human Rights

There are no expected equalities impacts from the proposed development.

In terms of Human Rights legislation, people/individuals have the right to life and individual, family and social life. For this application, the proposed flood defence measures will protect the occupants of the hospital and the hospital buildings giving the right to life, i.e. reducing risk of losing life from the buildings being flooded. The current proposals will protect the residents of this part of Moredunvale Road, Nether Craighour and Little France Mills regarding their right to life and their right to individual, family and social life. In addition, the proposed cut in the Burn at Little France Mills and consented in planning application 14/0078/AMC currently reduces the risk of flooding to the properties at Little France Mills. Therefore, there are no expected human rights issues.

### f) Public Comments

#### **Material Comments**

- Risk of flooding, such as ground water levels, ground saturation, the impact on the water table and phasing of the flood defence works have been addressed in assessments 3.3 (b) and 3.3 (c). This includes the concerns regarding the impact on the properties at Little France Mills.
- Loss of trees, this is addressed in Assessment 3.3 (b).
- Other solutions be investigated. The Council as Planning Authority can only assess the proposed development contained in the planning application under consideration. It cannot delay a determination or refuse to determine an application on the grounds that other solutions should be looked at.

#### **Non-material comments**

- Subsidence and the road being lifted. The planning application does not propose to raise the level of the public roads.

Any subsidence would be a matter for the Council under other legislative responsibilities if it were a public road or caused a danger and property owners if it was a private property. Maintenance and failing of road storm drains was raised. This issue is dealt with by the Council under other responsibilities and is not a planning matter. The matter has been raised with the appropriate Council department.

- Litter. Planning has no locus in this matter. The Council is able to deal with this under other responsibilities and functions.
- Loss of parking in the car park in Nether Craigour (left of the bridge). The car park is out-with the boundary of the application site and the parking area will not be lost due to the proposed works.

### **Community Council**

No comments have been received from the Community Council.

### **CONCLUSION**

In conclusion, the proposal is acceptable in this location and the proposed flood prevention works are acceptable. There will be no impact on neighbouring amenity and there will be no expected equalities or human rights issues. There are no other material considerations that outweigh this conclusion.

It is recommended that this application be Granted subject to the details below.

### **3.4 Conditions/reasons/informatives**

1. A detailed specification, including trade names where appropriate, of all the proposed external materials shall be submitted to and approved in writing by the Planning Authority before work is commenced on site; Note: samples of the materials may be required.
2. Sample/s of the proposed walls shall be submitted to and approved in writing by the Planning Authority before work commences on site.
3. The approved landscaping scheme shall be fully implemented within six months of the completion of the development.
4. A landscape management plan, including tree replanting, shall be submitted to and approved in writing by the Planning Authority before work is commenced on site; the approved plan shall be implemented within 6 months of the completion of the development.
5. No development shall take place until the applicant has secured the implementation of a programme of archaeological work, in accordance with a written scheme of investigation which has been submitted to and approved in writing by the Planning Authority, having first been agreed by the City Archaeologist.

6. No development shall take place until details of the:
- location of the silt trap (or confirmation that it is not required);
  - location of the trash screen;
  - position of the proposed flood gate; and
  - position of outfall and gradients of surface water pipelines

have been submitted and approved in writing by the Head of Planning and Building Standards.

7. Details regarding the weir should be submitted to and approved in writing by the Head of Planning.

**Reasons:-**

1. In order to enable the planning authority to consider this/these matter/s in detail.
2. In order to enable the planning authority to consider this/these matter/s in detail.
3. In order to ensure that a high standard of landscaping is achieved, appropriate to the location of the site.
4. In order to ensure that a high standard of landscaping is achieved, appropriate to the location of the site.
5. In order to safeguard the interests of archaeological heritage.
6. In order to enable these matters to be given further consideration by the Head of Planning and Building Standards.
7. In order to enable the Head of Planning and Building Standards to consider the matter in more detail.

**Informatives**

It should be noted that:

1. The development hereby permitted shall be commenced no later than the expiration of three years from the date of this consent.
2. No development shall take place on the site until a 'Notice of Initiation of Development' has been submitted to the Council stating the intended date on which the development is to commence. Failure to do so constitutes a breach of planning control, under Section 123(1) of the Town and Country Planning (Scotland) Act 1997.

3. As soon as practicable upon the completion of the development of the site, as authorised in the associated grant of permission, a 'Notice of Completion of Development' must be given, in writing to the Council.
4. The construction of the weir will require authorisation under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR).
5. A Minor Roadworks consent and a temporary road closure order must be applied and secured prior to carrying out any works to the road.
6. Any works to the road, including footways, are required to be an adoptable standard.
7. All works should be carried out in accordance with the Construction Environmental Management Plan.
8. A method statement for the removal of Japanese Knotweed (*Reynoutria japonica*) should be provided for the approval of the Head of Planning and Building Standards prior to works commencing on site.
9. Details of the proposed construction method should be submitted to the Flood Prevention Officer of the Council for consideration.
10. Technical approval will be required.
11. This grant of planning permission does not imply the absence of flood risk.

## **Financial impact**

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### **4.1 The financial impact has been assessed as follows:**

There are no financial implications to the Council.

## **Risk, Policy, compliance and governance impact**

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5.1 Provided planning applications are determined in accordance with statutory legislation, the level of risk is low.

## **Equalities impact**

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### **6.1 The equalities impact has been assessed as follows:**

This application was assessed in terms of equalities and human rights. The impacts are identified in the Assessment section of the main report.

## **Sustainability impact**

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### **7.1 The sustainability impact has been assessed as follows:**

This application is not subject to the sustainability requirements of the Edinburgh Design Guidance.

## **Consultation and engagement**

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### **8.1 Pre-Application Process**

Pre-application discussions took place on this application.

### **8.2 Publicity summary of representations and Community Council comments**

The application was advertised on 20 June 2014 and neighbours were re-notified of revised plans on 17 July 2014. Seven representations,( six objections and one comment) were received and they raised the following issues:

#### **Material Comments**

- Flooding:
  - Nowhere for ground water levels to go; Little France Mills surrounded;
  - Properties at Little France Mills and Nether Craigour at greater risk from ground level flooding; could flood due to ground water saturation and failure of road storm drains;
  - The sheet piling will create an overground and underground barrier- a sustained wet period will lead to ground saturation and the water rising at Little France Mills;
  - Impact on water table;
  - Sump - possibility of sump being created behind the cottages (Little France Mills);
  - Nature in which planning applications have been processed/i.e. Phasing of works;
  - The authorities should take all means possible to mediate against flooding - including diversion of excess waters further upstream and proper/continuous maintenance of drains; and
  - Solutions - not all solutions have been fully explored - a reinforced flood wall rather than piling behind Little France Mills would not have disadvantaged any properties within the area and allow nature to take care of its own ground water levels.
  - Trees - loss of trees.

#### **Non-Material Comments**

- Replacement Bridge - subsidence and road being lifted.

- Litter - rubbish will be thrown on both sides of the wall and in the hedgerow; and
- Parking - loss of parking at car park in Nether Craigour.

## Background reading / external references

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- To view details of the application go to
- [Planning and Building Standards online services](#)

### Statutory Development Plan Provision

Burdiehouse Burn is a Local Nature Conservation Site.

The rest of the site area is in the Urban Area in Edinburgh City Local Plan. Protected open space is located opposite and to the west of the site. Liberton Golf Course to the west is designated Green Belt. A section along the burn between the western tip of Nether Craigour to approximately opposite Moredunvale Loan is identified as being an Area for Flood Management in Edinburgh City Local Plan.

The application site and the land along either side of Moredunvale Road have the same designations in the Second Proposed Local Development Plan (LDP). The site of the Royal Infirmary of Edinburgh is now designated as a Specific Economic Area in the LDP - site Emp 2 Edinburgh BioQuarter.

### Date registered

9 May 2014

### Drawing numbers/Scheme

01, 02, 03B, 04A, 05A, 06A, 07A, 10A, 12A, 13A,

Scheme 2

## David R. Leslie

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## **Links - Policies**

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### **Relevant Policies:**

#### **Relevant policies of the Edinburgh City Local Plan.**

Policy Des 1 (Design Quality and Context) sets general criteria for assessing design quality and requires an overall design concept to be demonstrated.

Policy Env 8 (Protection of Important Remains) establishes a presumption against development that would adversely affect the site or setting of a Scheduled Ancient Monument or archaeological remains of national importance.

Policy Env 9 (Development of Sites of Archaeological Significance) sets out the circumstances in which development affecting sites of known or suspected archaeological significance will be permitted.

Policy Env 12 (Trees) sets out tree protection requirements for new development.

Policy Env 15 (Sites of Local Importance) identifies the circumstances in which development likely to affect Sites of Local Importance will be permitted.

Policy Env 16 (Species) sets out species protection requirements for new development.

Policy Env 17 (Flood Protection) sets criteria for assessing the impact of development on flood protection.

#### **Relevant Non-Statutory Guidelines**

**Non-Statutory guidelines** Edinburgh Design Guidance supports development of the highest design quality and that integrates well with the existing city. It sets out the Council's expectations for the design of new development, including buildings and landscape, in Edinburgh.

# Appendix 1

## **Application for Planning Permission 14/01810/FUL At Proposed Flood Defences - Burdiehouse Burn, Moredunvale Road, Edinburgh Development of flood defences including erection of a flood wall structure, replacement of residential access bridge and ancillary works together with landscaping and associated works at land at Nether Craigour/Upper Craigour, Edinburgh.**

### **Consultations**

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#### **Archaeology comment**

*We would like to make the following comments and recommendations in respect to this application for the development of flood defences including flood wall structure, replacement residential access bridge and ancillary works together with landscaping and associated works.*

*The stretch of burn lies directly upstream from the historic Little France Steading and mill. The Little France Mill is recorded in operation from the mid-18th century and surviving range of buildings probably date to this period and are shown on the 1850's 1st Edition OS map. A comparison of the burn on this map with that shown on General Roy's map of a century earlier shows that the burn appears to have been canalised during this period to serve the mill. Furthermore the 1st Edition shows the location of an earlier bridge and well at the southern part of the section affected by these works.*

*Based on the historical and archaeological evidence the site has been identified as occurring within an area of archaeological potential. Therefore this application must be considered under terms the Scottish Government Historic Environment Policy (SHEP), Scottish Planning Policy (SPP), PAN 02/2011 and also under CEC's Edinburgh City Local Plan policies ENV8 & ENV9. The aim should be to preserve archaeological remains in situ as a first option, but alternatively where this is not possible, archaeological excavation or an appropriate level of recording may be an acceptable alternative.*

*Given the extent of modern development associated with the construction of the modern residential development it is considered that, on current information, the impact of this proposed scheme upon any buried archaeology is regard as low- moderate. However ground-breaking works associated with the construction of the flood defences could disturb remains which could evidence for the date and form of the canalised burn plus the earlier 18th/19th bridge and well shown on the 1st edition OS map. Accordingly it is recommended that a condition is attached to consent to ensure that a programme of archaeological works is undertaken prior to/during development to ensure the protection and/or full excavation and recording of any surviving archaeological remains.*

*If consent is granted it is recommended that this programme of works is secured using a condition based upon CEC model condition as follows;*

*'No development shall take place on the site until the applicant has secured the implementation of a programme of archaeological work (excavation, analysis & reporting, publication) in accordance with a written scheme of investigation which has been submitted by the applicant and approved by the Planning Authority.'*

*The work must be carried out by a professional archaeological organisation, either working to a brief prepared by CECAS or through a written scheme of investigation submitted to and agreed by CECAS for the site. Responsibility for the execution and resourcing of the programme of archaeological works and for the archiving and appropriate level of publication of the results lies with the applicant.*

### **SEPA comment**

*We have no objection to this planning application. Please note the advice provided below.*

#### *Advice for the Planning Authority*

##### *1. Flood Risk*

*1.1 We have no objection to the proposed development on flood risk grounds. Notwithstanding this we expect Edinburgh Council to undertake their responsibilities as the Flood Prevention Authority.*

*1.2 There is a current proposal to construct a new Royal Hospital for Sick Children on the existing car park to the west of the Royal Infirmary of Edinburgh at Little France, NGR NT 290 704. The Niddrie and Burdiehouse Burns used to cross through the proposed development site. These watercourses, however, were diverted in a single channel around the current footprint of the Royal Infirmary prior to its construction. A flood bund was extended around the site to provide protection up to the order of about a 1% AEP (1:100) flood event.*

*1.3 Prior to the construction of the new Royal Hospital for Sick Children and Department for Clinical Neurosciences on the site there is a need to raise the standard of flood protection up to a 0.1% AEP (1:1,000) flood level. The flood defence work is in two phases. SEPA has already commented on Phase 1 which was for the raising of embankments along the watercourse adjacent to the hospital site. We are now being consulted on Phase 2 of the flood defence works which will cover a reach of the Burdiehouse Burn immediately upstream of the hospital site: a reach extending approximately 300 metres from Old Dalkeith Road to Liberton Golf Course.*

*1.4 The defences will protect properties and the hospital site from floods up to a 0.5% AEP (1:200) flood including an allowance for climate change. It is estimated that properties at Nether Craigour are currently at risk from flows exceeding the 3.3% AEP (1:30) flood. Floodwaters overtopping the channel at this location will flow across Old Dalkeith Road and pond in the Little France Mills area.*

*There have been a number of concerns raised in recent weeks from residents living in the Little France Mills area who have been concerned that they may be at an increased risk of flooding due to Phase 1 of the defences.*

*1.5 The flood defence in Phase 2 will consist of a concrete wall ranging in height from 0.80 metres up to 1.70 metres. The wall crest heights include 500 mm freeboard allowance. The wall will tie into high ground and an existing wall at the upstream end of the proposed works. The highest walls will be in the vicinity of Nether Craigour Bridge where there is some backing up of floodwaters. In addition to the flood wall there will be a replacement bridge constructed in order to provide a longer span bridge structure at Nether Craigour, replacement of existing gabion baskets, improvements to banks to increase the conveyance capacity of the channel, the provision of a cut in the embankment at Little France Mills, some localised widening of the channel and appropriate landscaping and planting. There will be gates installed in the concrete wall upstream and downstream from the replacement bridge which will provide access to the channel to permit maintenance works to be carried out. These gates will be permanently closed except when maintenance is being undertaken.*

*1.6 The addendum statement states that the consultant has updated the hydraulic model with more accurate ground survey information and additional cross-sections. The results from the model re-runs have been used to finalise the detailed design of the scheme. SEPA's Flood Risk Hydrology team has not reviewed any updated reports from this work.*

*1.7 A key feature of the works is the replacement of the existing bridge. This will have a longer span. The channel is also to be widened at the crossing point to increase the conveyance capacity of the channel and reduce extreme flood levels. The soffit of the bridge will remain the same as that of the existing bridge. We advise that widening the channel may increase the risk of sediment deposition at this location. A programme of regular inspection will be required to monitor the impacts of the scheme on sediment transport through the engineered reach and maintenance undertaken when the design conveyance capacity of the channel is compromised.*

*1.8 Gabion baskets are to be replaced within the reach and the banks inside the defences recontoured and planted with selected scrub and herbaceous species to minimise the roughness of the channel and maintain its design conveyance capacity.*

*1.9 Floods that might exceed the design height of these new defences could overtop the concrete wall and flow towards Little France Mills. A 5.4 metre wide cut is required in the embankment at an elevation of 54.0 mAOD. This is designed to allow any floodwaters to drain back into the watercourse. Some additional work is required to widen the watercourse at this point in order to reduce in-channel flood levels and prevent flows from flowing from the watercourse into Little France Mills. This feature will need to be regularly inspected and maintained to ensure that floodwaters will drain positively from Lower France Mills to the watercourse. We stress that the proposed works should ensure that the properties at Little France Mills are not at risk from the Burdiehouse Burn unless flows exceed a 0.5% AEP (1:200) flood (including climate change).*

1.10 During the period of engineering works there will be a temporary vehicle access road and crossing in place. Details of this temporary crossing have not been submitted to SEPA. We strongly recommend that details of these temporary measures are fully discussed with the flood prevention authority and that it is satisfied that properties in the vicinity are not placed at an increased risk of flooding during the scheme construction phase.

## 2. Surface Water Drainage

2.1 We consider that this development should not have a significant impact for site drainage. The scheme's designers and engineers, however, need to recognise, however, that surface water run-off will become trapped behind the flood walls being constructed and, therefore, a means of discharging this water will need to be considered. Proposals for discharging this water should be agreed with the City of Edinburgh Council before this planning application is determined.

2.2 We believe that it is possible that the presence of this flood defence adds some emphasis to the need to ensure that appropriate Sustainable Urban Drainage Systems (SUDS) are installed in any newly constructed drainage areas, for instance as part of the proposals for the new Royal Hospital for Sick Children.

2.3 In terms of the proposed engineering activities, the applicant should be aware that the proposed work will almost certainly require formal Controlled Activities Regulations (CAR) authorisation.

### **SEPA further comment**

We have no objection to this planning application. Please note the advice provided below.

#### *Advice for the planning authority*

##### 1. Flood Risk

1.1 We have no objection to the proposed development of flood defences at Nether Craigour on flood risk grounds. Notwithstanding this we would expect Edinburgh Council to undertake their responsibilities as the Flood Prevention Authority.

1.2 There is a current proposal to construct a new Royal Hospital for Sick Children on the existing car park to the west of the Royal Infirmary of Edinburgh at Little France, NGR NT 290 704. The Niddrie and Burdiehouse Burns used to cross through the proposed development site. These watercourses, however, were diverted in a single channel around the current footprint of the Royal Infirmary prior to its construction. A flood bund was extended around the site to provide protection up to the order of about a 1% AEP (1:100) flood event.

1.3 Prior to the construction of the new Royal Hospital for Sick Children and Department for Clinical Neurosciences on the site there is a need to raise the standard of flood protection up to a 0.1% AEP (1:1,000) flood level. The flood defence work is in two phases. SEPA has already commented on Phase 1 which was for the raising of embankments along the watercourse adjacent to the hospital site.

*We are now being consulted on Phase 2 of the flood defence works which will cover a reach of the Burdiehouse Burn immediately upstream of the hospital site: a reach extending approximately 300 metres from Old Dalkeith Road to Liberton Golf Course.*

*1.4 The revised Phase 2 scheme forms part of the overall flood management scheme to provide protection to the new Royal Hospital for Sick Children and existing Royal Infirmary of Scotland up to a 0.1% AEP (1:1,000) flood event. The Phase 2 scheme will also provide flood protection to properties in the Nether Craigour, Moredunvale Road and Little France Mills areas up to a 0.5% AEP (1:200) flood including an allowance for climate change. It is estimated that flows will currently overtop the banks at Nether Craigour when flows exceed the 3.3% AEP (1:30) flood. Floodwaters overtopping the channel at this location will flow across Old Dalkeith Road and pond in the Little France Mills area.*

*1.5 Arup previously produced a summary addendum statement for the Phase 2 flood defences. We provided advice on this document in May 2014. Since we responded, the applicants' consultants have continued to develop and refine the final flood management scheme. A revised summary addendum statement has been produced, dated 4 July 2014, which we have been requested to review.*

*1.6 The revised Phase 2 scheme forms part of the overall flood management scheme to provide protection to the new Royal Hospital for Sick Children and existing Royal Infirmary of Scotland up to a 0.1% AEP (1:1,000) flood event. The Phase 2 scheme will also provide flood protection to properties in the Nether Craigour and Little France Mills areas up to a 0.5% AEP (1:200) flood including an allowance for climate change.*

*1.7 The flood defence in Phase 2 will consist of walls with crest heights that will include 500 mm freeboard allowance. The walls will tie into high ground and an existing wall at the upstream end of the proposed works. The revised addendum statement indicates that it is now proposed to improve the conveyance capacity of the channel immediately downstream of the Old Dalkeith Road by lowering the right bank to create a 2-stage channel. This location is currently a pinch point on the watercourse causing water levels upstream to back-up. The proposed river engineering works will lower flood levels in this area and upstream. Remodelling of the channel with this improved conveyance indicates that it will now no longer be necessary to replace the existing Nether Craigour Bridge due to the generally lower flood levels. It should be noted that SEPA has not been provided with the results of the model and relies on the summary of findings contained in the addendum statement.*

*1.8 It is proposed to install a flood gate in the flood wall immediately upstream of the existing Nether Craigour Bridge in order to provide access to the watercourse for the local authority to assist in the undertaking of essential maintenance. The flood defences will make maintenance of the watercourse in the vicinity of the bridge more challenging. Currently silt, gravel and other debris tends to drop out in this area due to the more gentle gradient of the stream bed and reduced flow velocities at this location. To reduce the amount of material that might deposit under and around the bridge the consultant has proposed to install a weir 200 metres upstream of the bridge which would act as a silt trap. The weir would be located in an open area where it would be easy to access with machinery to remove trapped material and reduce the frequency of similar activity at Nether Craigour Bridge. In terms of flood risk, we are satisfied that the proposed weir and the improved channel improvements immediately downstream of*

*Old Dalkeith Road should reduce the rate of deposition in the vicinity of Nether Craigour Bridge.*

*1.9 In summary, in terms of flood risk, SEPA has no objection to the proposed flood management scheme that is outlined in the summary addendum statement (4 July 2014). The current flood risk to Nether Craigour, Moredunvale Road, Old Dalkeith Road, Little France Mills areas and the site of the new Royal Hospital for Sick Children and Department for Clinical Neurosciences will be significantly reduced by the scheme.*

## *2. Water Quality*

*2.1 A weir is proposed to mitigate the consequence of lowered stream velocities in the reach of the watercourse upstream of the Nether Craigour Bridge. This weir is proposed to trap sediment upstream of the bridge and, thereby, manage the issues of increased sedimentation which will arise as a result of the lower stream velocities. While we do not object to this measure, in principle in terms of water quality, we note that the construction of the weir will require authorisation under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR). This creates an unusual situation. It is more common for SEPA to encourage the removal of weirs or other engineered structures in watercourses, so that fish-passage and other indicators of good ecological status are maintained and improved. The provision of a new weir is, on the face of it, contrary to this duty to improve or prevent the deterioration in status, given to SEPA by the Water Framework Directive.*

*2.2 Consequently we are unable, at this time, to advise you if the weir construction can be consented under CAR. The further information that would be required includes: the detailed design of the weir; the justification of the weir's location; and further justification as to why the necessary sediment management cannot be carried out at the Bridge (where sedimentation currently occurs).*

*2.3 We understand that the time taken to provide this information will delay both the determination of this application and the construction of this phase of flood defences. The construction of the weir is part of this application but it is not integral to the design of the flood defences. We suggest that if planning permission is granted it excludes permission for construction of the weir. This allows for further information to be provided on the weir and consideration of whether it can be consented under CAR or for the discussion, agreement and authorisation of an alternative means of sediment management.*

## **Environmental Assessment comment**

*Environmental Assessment offers no objection to this application and welcomes the measures mentioned within the Construction Environmental Management Plan (CEMP) dated 8 May 2014. This development may have minor impacts during the construction phase in regards to noise and local air quality impacts. However if the mitigation measures mentioned in the CEMP are carried out then impacts will be reduced further.*

## **Transport comment**

*We have no objections to the application subject to the following being included as conditions or informatives as appropriate:*

- 1. The applicant should be informed that prior to carrying out any works a Minor Roadworks consent and a temporary road closure order must be applied for and secured;*
- 2. All works are required to be an adoptable standard.*

### **Transport further comment**

*Further to my memorandum of 25 June 2014 and the revised proposals, I confirm that I have no objections to the application subject to the following being included as conditions or informatives as appropriate:*

- 1. The applicant should be informed that prior to carrying out any works to the road, a Minor Roadworks consent and a temporary road closure order must be applied for and secured;*
- 2. Any works to the road, including footways, are required to be an adoptable standard.*

### **Flood Planning**

*The Flood Prevention Unit can recommend approval of the planning application.*

*There are a number of issues that need to be clarified either prior to any committee hearing or directly after approval being given. These namely are:*

#### *Committee*

- 1. A drawing showing the actual height of the walls (as opposed to FDL), this will aid us in visualising the actual wall and provide the councillors with added detail.*
- 2. Could you let us know the proposed construction method\_*

*Post-approval (general thoughts at the moment, there will be more as the scheme progresses) :*

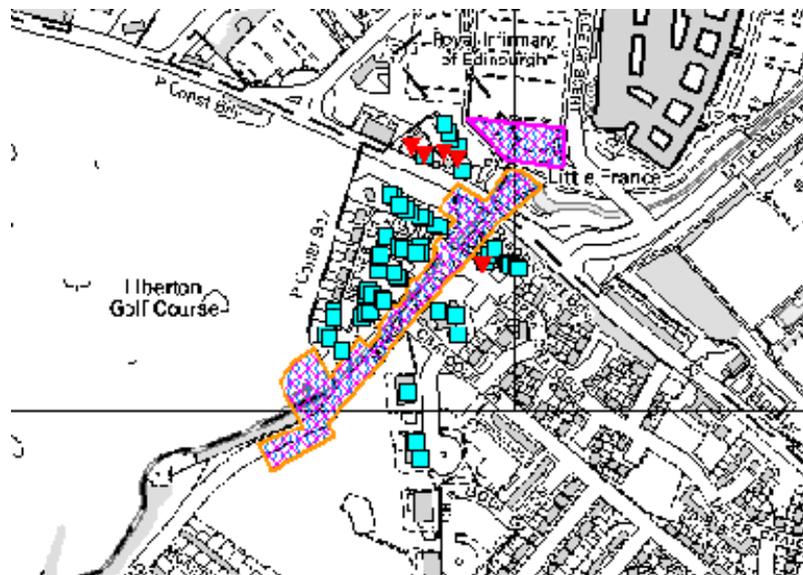
- 1. Location of silt trap or whether it is actually required.*
- 2. Location of proposed trash screen*
- 3. Position of the proposed flood gate*
- 4. Position of outfall and gradients of surface water pipelines - the outfall invert needs to be have some fall on them (unlike unfortunately those outfalls at Warriston Crescent that are basically a silt collector!)*

5. *In-depth discussion with the CEC Bridge team prior to seeking technical approval.*

*It is assumed that the application will go to committee, therefore the requested information would be appreciated as soon as possible.*

## Location Plan

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**END**