

Members' Library Service Request Form

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Document Title	Musselburgh Flood Protection Scheme MLS report - Appendix A.24

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Additional information:

Authorised By	Carlo Grilli
Designation	Service Manager - Governance
Date	18/10/24

For Office Use Only:	
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Subject: (0738) Re: Automatic reply: Musselburgh Objection
Sent: 25/04/2024, 02:34:51
From: [REDACTED]
To: Musselburgh Flood Protection Objections
Attachments: [Flood Scheme Objection \[REDACTED\].pdf](#)

Follow Up Flag: Follow up
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Categories: [REDACTED]

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I have realised that the previous document was not the correct version, please read below regarding disabilities.

I have attached the correct version here and ask that the first version is disregarded.

Dear Objections Team

I hope this email finds you well. I am writing to retrospectively request a brief extension for the submission of my objection. I regret to inform you that due to unforeseen difficulties related to my disabilities, I encountered significant challenges that prevented me from meeting the original deadline for objection, resulting in the wrong document being sent.

As a resident deeply invested in the outcome of the flood prevention scheme, I am eager to voice my concerns regarding the proposal. However, I must disclose that I am neurodiverse, living with ADHD and Dyslexia, which often poses obstacles in tasks such as processing large volumes of paperwork, time management, and communication.

The paperwork provided for the scheme was substantial, and the 28-day period allotted for review coincided with the Easter holidays, further complicating the situation. The combination of the extensive documentation and the holiday period posed an overwhelming challenge for me to adequately review and prepare my objection within the given timeframe.

Under Scottish legislation, individuals with disabilities are entitled to reasonable accommodations to facilitate their meaningful participation in public consultations and legal processes. The time sensitive nature of the paperwork, compounded by the holiday period, resulted in an insurmountable barrier for me to lodge my objection by the deadline.

I remain fully committed to contributing constructively to the decision-making process and providing valuable insights into the potential impacts of the proposal on our community. Hence, I respectfully request a retrospective extension of 2.5 hours to submit my objection effectively. I believe this brief extension is essential to accommodate my disabilities and ensure my meaningful engagement in the process.

I apologise for any inconvenience caused and appreciate your understanding and consideration of my circumstances. I would appreciate it if someone could acknowledge that this request has been accepted under the Equalities Act. Many thanks

[REDACTED] CORRECT PAPERWORK ATTACHED

Hello,

Thank you for your engagement with the Musselburgh Flood Protection Scheme. This email is to confirm that your correspondence has been received.

Under the Flood Risk Management (Scotland) Act 2009, the notification of the Musselburgh Flood Protection Scheme commences on Thursday 21st March 2024. Objections can be made about the proposed scheme until Wednesday 24th April 2024.

All e mails received to this inbox will remain unread until the end of this objection period.

Kind Regards,

East Lothian Council

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We're living through stressful times right now, and everyone's feeling it.

Our staff are doing their best to assist local residents and businesses whilst delivering essential services.

Please, be nice.



BE NICE
RESPECT US AS WE RESPECT YOU






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Subject: Strong Objection to the Proposed Musselburgh Flood Scheme

Dear Carlo and MFPS Objections team

I am writing to express my strong objection to the proposed Musselburgh flood scheme. As a resident living within  the predicted flood zone, I object to the potential consequences of the scheme on myself, my property, and the surrounding community.

I am directly affected by any changes to flood management strategies in the area. The proposed scheme has the potential to significantly impact my property value, safety, and quality of life. Furthermore, any disruption to the natural landscape and ecosystem because of the scheme could have lasting consequences for the entire community.

Given the implications of the proposed scheme for residents living in Musselburgh and the surrounding areas, I urge you to take my objection seriously and thoroughly consider the concerns raised by myself and others who are directly affected. It is crucial that any decisions regarding flood management in our area prioritize the well-being and interests of all residents, especially those most directly impacted by the proposed changes.

Where any of the objections raised in this letter are, in the opinion of the Council, considered invalid, this shall not operate to invalidate any other legitimate objection raised in this letter.

Timescale

I object to the short timescale for objections, coupled with the complexity of the project and confusing labeling of technical Environmental Impact Assessment (EIA) reports, which has hindered the community's ability to fully understand and object to the proposed scheme. Personally, I work full-time hours and have a specific learning disability which makes reading text on a screen very difficult, with no real access to the printed documents and a £1000 fee to have printed versions. I feel that I was excluded from participating in the objection process effectively.

I object to the scheme based on the denial of a Freedom of Information (FOI) request related to public feedback collated by the Musselburgh Flood Protection Scheme, which cited costs and staffing limitations for collating the requested information. This denial is indicative of a concerning lack of meaningful analysis of public feedback.

I object to the scheme due to the refusal of the above cited FOI request, which underscores the significant challenges faced by residents in accessing vital information about the scheme. It also raises serious doubts about the Council's commitment to transparency and accountability in the decision-making process. Denying access to information undermines public trust and prevents residents from fully understanding and engaging with the project.

Furthermore, I object to the lack of quantitative or qualitative publication of the public's expressed opinions prior to June 2023. No central repository of all feedback received leading up to June 2023 was set up. The information has not been put into the public domain. It has not been provided to the Councillors who have strategic oversight of the project. The Project Team use the information to support their designs but have not provided any proof of their assertions regarding what the public have said they wanted.

Graffiti

My personal experience of making three requests for graffiti removal on Fix My Street, with only one attended, highlights a potential gap in the council's responsiveness, as well, indicates that if walls were to be built, my expectation is (particularly in light of the fiscal crisis the council currently faces) that vandalism would be treated with the same limited response as it is currently.

I object to the flood scheme due to East Lothian Council's demonstrated lack of effectiveness in managing graffiti, as evidenced by a brief walk around Musselburgh town center and the significant expenditure of £92,000 on graffiti removal between 2011 and 2018 (FOI 2018/535626) which underscores the ongoing challenges East Lothian Council faces with graffiti cleaning.

Additionally, I have provided images of flood walls from different locations across the UK, illustrating instances of graffiti vandalism. This underscores the potential for similar issues to arise with the proposed flood walls in Musselburgh.

Costs

Regarding the lack of transparency surrounding the costs associated with the Musselburgh Flood Scheme, it has come to my attention that there has been no breakdown of costs presented to residents to justify the estimated £103.535 million in expenses for the scheme. In light of the current fiscal crisis facing the Council and the necessity of cutting essential services, the exorbitant costs of the project are deeply concerning.

Moreover, I object to the alarmingly increased costs without adequate justification or accountability from the Council. As a taxpayer, I object to the scheme on the basis of the Council's failure to justify and account for the disproportionately high capital expenditure.

Additionally, it appears that minimal consideration has been given to the operational expenditure required for the maintenance of structures over their planned 100-year design life. The Council's attempt at future-proofing fails to acknowledge the uncertainties surrounding climate change forecasting and the potential consequences of weather regimes on the infrastructure. Given the increasing risk of flood events due to climate change, it is imperative that the Council reassess its approach to infrastructure planning and maintenance.

Furthermore, I object to the scheme on the basis that all assessments related to the scheme were conducted internally by Jacobs staff, as publicly stated by the consultants. During the recent meetings held at Brunton Hall in March/April 2024, it was noted that all paperwork made available was attributed to Jacobs, with no evidence of any external independent appraisal. This raises significant concerns about the transparency and objectivity of the assessment process.

The phrase "the consultants are marking their own homework" accurately reflects the current situation and is entirely objectionable. It is imperative that any project of this scale and importance undergoes thorough and independent scrutiny to ensure accountability and to instill public confidence.

Trees and Carbon

I object to the Musselburgh Flood Scheme as it stands because the proposed mitigations in the EIA (Ch 12) are all described as 'potential' actions, or actions that 'could' be explored through the proposed Carbon Management Plan. While the EIA gives a range of positive suggestions, without a robust means of enforcing them there is a significant risk that they will be seen as optional.

The EIA states that 0.33 hectares of ancient woodland will have to be felled in construction of the scheme, while also highlighting that NatureScot has described such habitat as an 'important and irreplaceable national resource' Ancient woodland is used for forest school and otherwise available to school pupils for their wellbeing and education.

The proposed chopping down of trees along the river, especially when the number fluctuates significantly over time, also raises concerns regarding compliance with relevant legislation and guidelines. Specifically, the Town and Country Planning (Tree Preservation Order) (Scotland) Regulations 2021 and the Town and Country Planning (Tree Preservation Order) (Scotland) Regulations 2021 aim to protect trees of significant amenity value.

According to these regulations, local planning authorities must assess the impact of proposed tree removals on the amenity of the area. This includes considering factors such as visual amenity, biodiversity, and the contribution of trees to the local environment. Furthermore, local authorities must consult with the community and take their views into account before making decisions regarding tree removal.

The inconsistent approach to tree removal, as evidenced by the fluctuating number of trees earmarked for chopping down, suggests a lack of thorough consideration of the impact on the local environment and community amenity. Additionally, the explanation provided by the East Lothian Council (ELC) regarding the "appropriately coloured" (red and green) designation of trees and the possibility of reconsideration in the future does not align with the requirement for transparent decision-making and community consultation outlined in the legislation therefore I object to the scheme on this basis.

Carbon Offset

To calculate the number of trees needed to offset 42,183 tonnes of carbon the project is currently predicted to create, we need to consider the average carbon sequestration capacity of a tree.

The exact amount of carbon sequestered by a tree can vary depending on factors such as species, size, age, and environmental conditions. However, a commonly used estimate is that a tree can sequester approximately 22 kilograms (kg) of carbon dioxide (CO₂) per year.

To find the number of trees needed, we can use the following formula:

Number of Trees = Total Carbon Offset / Carbon Sequestration per Tree

Total Carbon Offset = 42,183 tonnes (1 tonne = 1000 kg so this is equivalent to 42,183,000 kg)

Carbon Sequestration per Tree = 22 kg CO₂ per year

Using the formula: Number of Trees = 42,183,000 kg / 22 kg/tree ≈ 1,918,318 trees

So, approximately **1,918,318 trees** would be needed to offset 42,183 tonnes of carbon that the scheme would produce.

I object to the scheme based on the significant number of trees at risk for reasons detailed below:

Air Pollution Removal: Trees can absorb and filter out airborne pollutants, including nitrogen dioxide (NO₂), particulate matter (PM), volatile organic compounds (VOCs), and carbon monoxide (CO), through their leaves, branches, and bark. This process helps improve air quality and reduce the concentration of harmful pollutants in the surrounding environment. I object to the scheme based on the significant risk to my health through the combination dust created by satellite construction sites, construction throughout the town for a period of 5 years and the removal of trees which protect us from this pollution.

Particulate Matter Capture: Trees can trap and capture airborne particulate matter, such as PM₁₀ and PM_{2.5}, on their surfaces. The rough and irregular surfaces of tree leaves and branches provide a large area for particulate matter to adhere to, effectively removing these pollutants from the air. I object to the scheme based on the significant risk to my health through the combination dust created by satellite construction sites, construction throughout the town for a period of 5 years and the removal of trees which protect us from this pollution.

Stormwater Management: "Urban forests and vegetation also play a critical role in the urban hydrologic cycle, intercepting rainfall, reducing runoff, and increasing infiltration of water into soils." (McPherson et al., 1997) I object to the scheme based on its dismissal of the importance of trees throughout the planning stages. The trees should not be 'saved because the public were upset about it' they should be an integral part of the planning.

Biodiversity Support: "Urban trees provide habitat for a variety of birds, mammals, and insects, contributing to urban biodiversity and ecological resilience." (Fischer & Colding, 2014) I object to the flood scheme on the grounds that the scheme will actively and knowingly disrupt natural habitats.

Noise Reduction: "Trees can serve as effective natural barriers to noise pollution, reducing sound levels by up to 10 decibels or more, depending on the species, size, and density of the tree canopy." (Bradley & Daniel, 1993) I have a specific disability that makes my noise sensitivity particularly high. One of the main reasons ██████████

██████████ to live in Musselburgh is that my mental health is significantly better here due to lower noise levels. I object to the scheme based on its potential to increase traffic noise throughout the local area. Which will also be exacerbated further if walls are included in the scheme.

Aesthetic and Psychological Benefits: "Access to green spaces, including urban forests and parks, has been shown to have positive effects on mental health, reducing stress levels and improving overall well-being." (Van den Berg et al., 2010) I have long term mental health issue which will be significantly exacerbated by the removal of nature, I object to the scheme due to impact to my mental health and the negative impact of the aesthetics of Musselburgh.

Property Value Enhancement: "Research has found that the presence of trees in urban neighborhoods is associated with higher property values, with properties located near trees selling for 3–7% more compared to similar properties without trees." (Donovan & Butry, 2010) I object to the scheme due to the fact that a significant number of trees will be remove to make way for hard engineering.

Carbon Sequestration: "Urban trees sequester carbon dioxide from the atmosphere, helping to mitigate climate change by storing carbon in their biomass and reducing net greenhouse gas emissions in urban environments." (McPherson & Simpson, 1999). I object to the scheme as it will have a direct impact on the carbon dioxide levels in my home and surrounding areas which

Design Approach – Outdated

The design approach of the proposed scheme appears outdated, especially considering scientific evidence supporting alternative flood management options such as floodplain restoration, river wiggling, beaver-built leaky dams, and planting indigenous vegetation. The scheme minimally attempts to meet updated National Planning Framework 4 guidance for construction projects to provide biodiversity net gain.

Firstly, there is a fundamental flaw in the design premise of the proposed scheme. Designing for a 1:200 year event appears unjustified and overly conservative given Musselburgh's limited history of flooding. The adverse consequences of such a

decision, particularly the heavy engineering design implications, raise significant concerns about the necessity and appropriateness of the proposed scheme.

Secondly, I am deeply troubled by the reliance on climate change scenarios, particularly the "credible worst-case scenario." The proposed scheme seems to be based on overly pessimistic interpretations of available scientific data, with inadequate consideration for the uncertainties associated with climate change models. Moreover, the sustainability and longevity of the hard engineering solutions proposed are questionable, especially in light of the potential erosion risks and the lack of comprehensive long-term maintenance planning.

Furthermore, there are concerns regarding transparency and accountability in the process. The absence of specific modeling data and independent validation raises doubts about the integrity of the proposed scheme. Allegations of manipulation of scientific data to support the scheme only exacerbate these concerns, highlighting the need for greater transparency and public scrutiny in the decision-making process. I object to the scheme based on the fact that that Jacobs are not working transparently at this stage I have lost confidence the company, I believe that their work does not have Musselburghs' best interests at heart.

The erosion predictions presented in the Dynamic Coast report directly contradict assumptions about the longevity of the proposed defences. This undermines key aspects of the case for the scheme, including its environmental objectives, legislative compliance, and the accuracy of benefit-to-cost ratio estimates. I object on these grounds.

The exclusion of nature-based solutions despite compelling evidence presented in the Dynamic Coast report commissioned by the Council.

It is disheartening to observe a lack of willingness to explore sustainable alternatives, especially when faced with evidence supporting the efficacy of nature-based flood management (NFM) solutions. These approaches not only offer effective flood mitigation but also contribute to ecosystem health and resilience.

Furthermore, the unilateral dismissal of community suggestions adds to the frustration felt by residents who are deeply invested in safeguarding our environment and communities. The failure to incorporate catchment NFM measures exacerbates this concern and highlights a systemic disregard for environmentally sound approaches to flood risk management. To quote Connor Price at the meeting in Fisherrow “Well what would you prefer sand dunes like Gullane?” “Erm Yes please” – “Well you need to tell us that” – “We have over and over again”

I object to the current proposals on the basis that the EIA itself identifies potentially “significant” effects in relation to protected species, the spread of invasive species, habitat loss. Moreover, the significant identified in respect of the geomorphology of the waters (during both construction and operational phase of the project) due to loss of channel capacity, inadequate floodplain storage and permanent changes “to the channel width and depth leading to alterations in flow velocities and discharges” presents unacceptable adverse effects of the Scheme, particularly given the Scheme itself simply cannot be justified in its current guise.

I object to the current proposals on the grounds that the biodiversity enhancements are not strong enough and further commitments are needed, e.g. catchment biodiversity improvements and consideration given to installation of a rock ramp for Eskmills Weir. The biodiversity enhancements, as required by NPF4, should be far more ambitious and should include some ‘traditional’ Natural Flood Management actions such as tree-planting, pond creation or leaky dam structures in the catchment (these actions being included under biodiversity enhancement in recognition of the fact that their flood reduction impact is uncertain and therefore cannot be the main justification for their inclusion).

Further biodiversity enhancements relating to the River Restoration project should be included within the town of Musselburgh, including work to improve the water quality of the Mill Lade and Pinkie Burn (both assessed as limited ecological value in the EIA, Ch7), and the installation of a ‘rock ramp’ for fish passage at Eskmills Weir, as recommended by Forth Rivers Trust as ‘having many benefits over other types of fish passage’. I object on the basis that biodiversity enhancements have not been fully considered.

I am concerned about the decision to commit to a particular line of defence for the next 100 years. My objection stems from the fact that this approach contradicts the “managed, adaptive approach” recommended by the Scottish Government for

addressing coastal changes. By rigidly adhering to a fixed defence line, the scheme overlooks the importance of flexibility and adaptation in managing coastal areas. I object on these grounds.

Furthermore, I believe that this commitment imposes unnecessary constraints on the Council's Coastal Change Adaptation Plan, currently in progress. It limits the consideration of alternative strategies and fails to align with the guidance issued by the Scottish Government regarding coastal defence planning.

Regarding the lack of transparency surrounding the costs associated with the Musselburgh Flood Scheme. It has come to my attention that there has been no breakdown of costs presented to residents to justify the estimated £103.535 million in expenses for the scheme. In light of the current fiscal crisis facing the Council and the necessity of cutting essential services, the exorbitant costs of the project are deeply concerning.

Moreover, it is alarming that these costs have significantly increased since the inception of the project, without adequate justification or accountability from the Council. As a taxpayer, I object to the scheme on the basis of the Council's failure to justify and account for the disproportionately high capital expenditure. I object on the basis of a associated with the project to justify the £103.535 million expenditure

Additionally, it appears that minimal consideration has been given to the operational expenditure required for the maintenance of structures over their planned 100-year design life. The Council's attempt at future-proofing fails to acknowledge the uncertainties surrounding climate change forecasting and the potential consequences of weather regimes on the infrastructure. Given the increasing risk of flood events due to climate change, it is imperative that the Council reassess its approach to infrastructure planning and maintenance.

Furthermore, I strongly oppose the inclusion of the repair/replacement of the sea wall embracing the lagoons in the scheme. This matter should be handled through private negotiation and resolution between the private owner, Iberdrola/Scottish Power, and the Council. Despite this, the Council has failed to provide any assurance regarding the company's responsibility for ensuring the security of the sea wall and the safe storage of

pulverized fly ash stored behind it. This lack of clarity amounts to procedural impropriety and further undermines public trust in the project.

All assessments related to the scheme have been conducted internally by Jacobs staff, as publicly stated by the consultants.

During the recent meetings held at Brunton Hall in March/April 2024, it was noted that all paperwork made available was attributed to Jacobs, with no evidence of any external independent appraisal. This raises significant concerns about the transparency and objectivity of the assessment process and I object to the scheme on these grounds.

Furthermore, there has been no evidence presented to residents of any appraisal by the Scottish Environment Protection Agency (SEPA). Additionally, neither the councillors nor the public have been provided with an independent assessment of the scheme. This lack of external scrutiny is deeply troubling and undermines the integrity of the entire project.

The phrase "the consultants are marking their own homework" accurately reflects the current situation and is entirely objectionable. It is imperative that any project of this scale and importance undergoes thorough and independent scrutiny to ensure accountability and to instill public confidence. The MAT element, which includes 5m wide cycle routes, the position of the flood wall, inclusion of Ivanhoe bridge, design of the ramps, etc., has been portrayed as an integral part of the scheme and has been a key selling point in consultations with residents.

However, shortly before the Scheme was formally notified in March, the MAT component was unexpectedly withdrawn without formal notice or announcement. Since then, the Council and the Jacobs project team have provided inconsistent advice regarding the implications of this withdrawal, claiming it is irrelevant to the scheme and its design. This assertion is contradicted by the Environmental Impact Assessment (EIA) itself, which acknowledges the "influence" of MAT on the design and emphasizes the "design inter-dependence" between the Scheme and MAT.

It is evident that the MAT component cannot be segregated from the broader Scheme, and its withdrawal necessitates a reevaluation of the entire project. Therefore, I object to

the Scheme on the basis that it is impossible to approve it without reassessing the impact of this critical development and reissuing the EIA accordingly.

Furthermore, I raise procedural objections regarding the Council's failure to properly notify all stakeholders about the withdrawal of the MAT component. Residents and affected persons have been misled about the intended outcome of the Scheme, and any support claimed to have been received from the community during the consultation process must be rendered void. Many residents supported the Scheme believing that MAT was a fundamental part of it.

It is evident that the scheme has proceeded through consultations led by the Jacobs design team, which have been characterized as sham consultations lacking material impact on the design of the scheme. The general public has faced continual obfuscation and frustration tactics from the Council, including inconsistent responses to questions and unreasonable demands for administering Freedom of Information requests.

Furthermore, the Council's delegation of queries to the Jacobs-led project team undermines its democratic accountability and fails to reflect the genuine concerns and preferences of the residents of Musselburgh, whom the Council serves and must consider in the exercise of its public duties.

The inconsistencies in the number of properties likely to be affected by the scheme are deeply concerning and highlight the inaccuracy and confusion within the Council and its consultants. Discrepancies between documents raise serious questions about the veracity of statements made by the Council and its consultants regarding the fundamental aims and justification for the scheme.

Moreover, the outcomes of consultations undertaken by the Council, such as the Musselburgh Business Partnership, have not been made public, denying residents access to crucial information about the decision-making process. This lack of transparency raises important questions about the exercise of the Council's statutory authorities.

The Council's attempts to downplay public opposition to the scheme while presenting it as well-received in its own materials are deeply troubling. Rejection of petitions and

failure to accurately represent public sentiment undermine the democratic process. Public opinion has been routinely ignored without justification, and the credibility of the scheme is called into question by Jacobs' efforts to present it as widely supported without genuine evidence.

I wish to address the lack of consideration given to the enjoyment of land and the potential damage to properties resulting from the scheme's engineering works.

Under Section 82, compensation must be paid to any person who sustains damage as a consequence of exercising certain powers. Section 83(1) defines damage as the depreciation of the value of a person's interest in land or the disturbance of a person's enjoyment of land. It is crucial that the enjoyment of land is thoroughly considered in the context of the scheme, yet there is no evidence that the Environmental Impact Assessment (EIA) or the Council have given this due consideration.

Specifically, I am concerned about the potential structural damage to my property as a result of the embankment formation and bridge replacement works proposed in close proximity. The construction activities, including the removal of large, mature trees and the use of heavy machinery such as steel pile-driving equipment, pose significant risks of vibrations that could damage houses and disrupt daily life. I request assurance that independent full surveys will be carried out beforehand to mitigate these risks.

Furthermore, the proposed flood structures will undoubtedly reduce the amenity of my property, which was a significant factor in my decision to purchase it. My family's access to the riverside, grass, and beachfront, is essential to our enjoyment and quality of life. The demolition and construction works outlined in the scheme also raise concerns about health and wellbeing, particularly given the potential effects on air quality and safety identified in the EIA.

Moreover, I anticipate a reduction in the value of my property as a result of the scheme's implementation, as noted in the EIA itself. The predicted impacts on the townscape, views, and vegetation further underscore the need for thorough consideration of compensation and mitigation measures.

Birds

The results presented in the EIA report from surveys of shoreline and coastal birds are not detailed enough to provide assessment of the impact of the scheme on the internationally and nationally designated sites around Musselburgh. One would not be able to judge if mitigation measures are adequate without this data.

The desk study part of the baseline data collection has also been inadequate. You need both survey results and relevant pre-existing data on bird species present, and their national and local population trends, and insights into relevant behaviour. The desk study in the EIA report also fails to include useful data from the East Lothian Council Ranger service, the British Trust for ornithology (BTO) and the Scottish ornithologist's club (SOC)

The EIA gives the agglomerate count figures of birds but should give species specific data. Also their data is out of date. They should have used the most recent data available up to 2022/2023 instead of 2013 to 2017.

There are also concerns about the accuracy of the baseline survey. It contains anomalies about the species of birds observed which makes one question the accuracy of all their information.

Also counting was done when the lagoons were under construction activity in 2021 to 2023 which was not representative, and according to Nature Scot bird surveys should not take place where there is disturbance that could affect the abundance, distribution or behaviour of birds within the survey area.

Surveys are still being carried out and the result of these should be waited for.

The EIA report attempts to identify and quantify loss of habitats from the scheme but it does not identify the main habitat impact of the scheme namely the loss of shoreline and intertidal habitats over its 100 year operational life. Hard defence structures along the coast create 'coastal squeeze'. This impact is not even mentioned in the EIA report biodiversity chapter, let alone assessed. EIA does not meet its own commitment to give an appraisal of the future baseline without the scheme in order to assess the possible effects of the scheme if it goes ahead.

Habitat loss from 'coastal squeeze' must be assessed properly. Not to do this goes against the council scheme objectives that 'the scheme will achieve as a minimum a neutral impact on the environment' and also that it will 'protect the Firth of Forth and its protected statuses'. ELC has an actual duty to protect and enhance biodiversity which cannot be fulfilled in this case without the necessary detailed bird data to assess the impact of the scheme and design mitigation.

There is repeated downplaying of Conservation importance in the EIA report, without any evidence for why this might be acceptable. There is no mention of the fact that many waders and waterfowl in the Firth of Forth have already suffered long term decline due to development impacts. Another example of this downplaying is the unsubstantiated claim that 'the area temporarily lost during construction constitutes a narrow linear area adjacent to the coastline which experiences high levels of disturbance from public use. This area is not considered to be an important habitat for qualifying interests of the Firth of Forth designated sites in comparison to the large expanse of sand flats along the coastline and the lagoons at Levenhall links'.

There is no evidence to back up these assertions on factors such as prey availability or exposure to disturbance or any of the other influences that need to be considered in order to assess these impacts.

The EIA report notes that 'the improvements to the active traffic network particularly along the seawall and the proposed Goosegreen bridge may result in increased pedestrian and cyclist traffic which may create increased operational disturbance to qualifying bird species' The report makes it clear that it's uncertain whether the cycle paths will result in increased active travel in which case how can the expenditure, the additional risk of impacts on internationally and nationally designated bird sites, and the carbon footprint of constructing these two elements of the scheme, be justified without strong independent evidence that there will be sufficient active travel benefits. These

two elements need to be removed from the scheme not least as there are already foot and cycle paths along the relevant sections of the scheme coastline.

Finally consider the impacts on recreational amenity over the construction period, specifically for birdwatching. Musselburgh is one of the most visited birdwatching sites in Scotland enjoyed by hundreds of visitors every year. This tourism and amenity value of the scheme area for birdwatching is not given recognition in the EIA report and as a result there is insufficient attention given to mitigating disruption to this activity. This is significant because the schemes construction phase could take a period of 5 to 10 years, imposing long-term damage to the area's use and reputation as an ornithology visitor attraction

Objections

1. **Inconsistencies and inaccuracies in information provided to the public:** The presence of discrepancies and contradictions in the information provided by the council and its consultants violates the principles of transparency and accountability outlined in the Scottish Government's Planning Advice Note 1/2020: Community Engagement (Scottish Government, 2020).
2. **Lack of genuine consultation and transparency throughout the planning process:** The consultation process lacks transparency and meaningful engagement with residents, which contravenes the Scottish Government's guidance on community engagement in planning processes (Scottish Government, 2019).
3. **Attempts to downplay and ignore public opposition to the scheme:** The failure to acknowledge or address widespread public opposition contradicts the Scottish Government's emphasis on inclusive decision-making and community empowerment in planning processes (Scottish Government, 2019).
4. **Failure to properly consider the enjoyment of land and potential damage to properties:** The scheme's impact on property values and residents' quality of life

raises concerns about compliance with the Scottish Government's guidance on sustainable development and placemaking (Scottish Government, 2021).

5. **Lack of thorough consideration of community feedback, particularly from residents with disabilities:** The council's failure to accommodate diverse needs and provide accessible information violates the principles of equality and inclusivity outlined in the Scottish Government's Equality Act 2010 (Scottish Government, 2010).
6. **Denial of Freedom of Information requests and lack of meaningful analysis of public feedback:** The council's refusal to provide requested information and failure to analyze public feedback contravenes the Scottish Government's guidance on transparency and accountability in public administration (Scottish Government, 2019).
7. **Lack of transparency surrounding the costs associated with the Musselburgh Flood Scheme:** The lack of detailed information on project costs and budget allocation raises concerns about compliance with the Scottish Government's principles of financial transparency and accountability (Scottish Government, 2020).
8. **Inadequate consideration of operational expenditure and climate change uncertainties:** The scheme's lack of clarity on long-term maintenance costs and resilience to climate change conflicts with the Scottish Government's guidance on sustainable infrastructure planning and adaptation to climate change impacts (Scottish Government, 2021).
9. **Lack of independent appraisal and external scrutiny of scheme assessments:** The absence of independent reviews and external scrutiny undermines the Scottish Government's principles of evidence-based decision-making and robust planning processes (Scottish Government, 2019).
10. **Unilateral withdrawal of key components of the scheme without proper notification or consultation:** The sudden withdrawal of crucial elements of the scheme without adequate consultation contravenes the Scottish Government's

guidance on transparent and inclusive planning processes (Scottish Government, 2020).

11. Procedural flaws in consultations and misleading representation of public sentiment: The procedural flaws in consultations and misleading representation of public sentiment violate the Scottish Government's principles of integrity, transparency, and public trust in decision-making processes (Scottish Government, 2019).

12. Failure to address legitimate concerns raised by residents and stakeholders: The failure to address residents' legitimate concerns contradicts the Scottish Government's emphasis on inclusive decision-making and community engagement in planning processes (Scottish Government, 2019).

I expect all correspondence by email or letter, under no circumstances should a member of the council or Jacobs come to my home.

I expect a full response to each of my objection points

Yours Faithfully



Attached below are images that support my objections



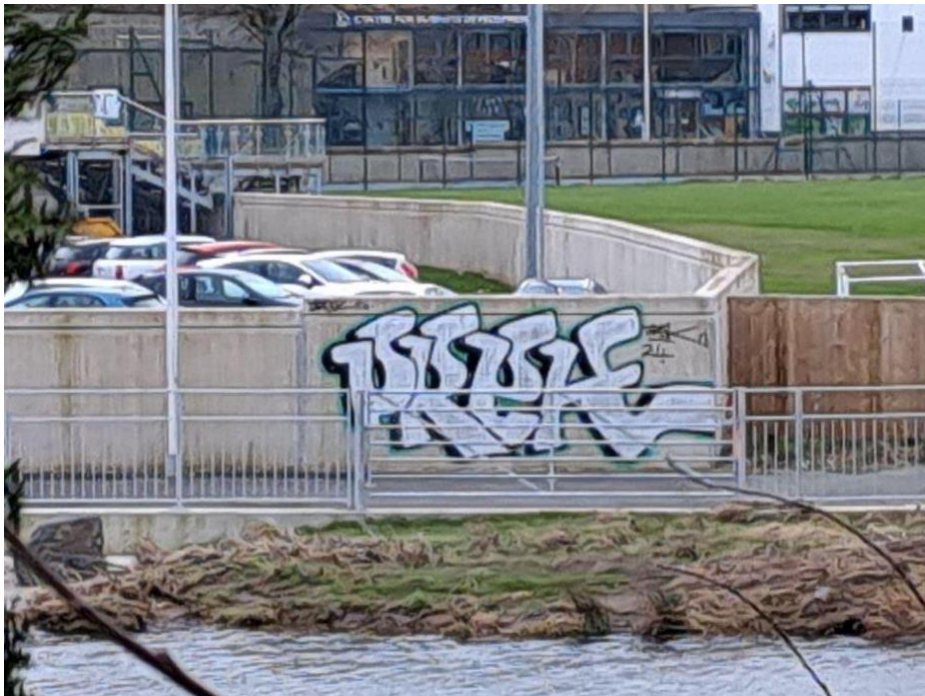
Yorkshire Clifton Ings flood defence scheme

Source https://www.coolgeography.co.uk/A-level/Year%2012/UNIT1/rivers/flood_defences_inyork.htm



18th May 2015:

Vandals have been condemned for spray painting obscene graffiti on the Inverness flood scheme. <https://planetradio.co.uk/mfr/local/news/listen-hunt-inverness-flood-scheme-vandals/>



6th February 2024

Flood defence wall at Hawick High School car park vandalised
<https://www.bordertelegraph.com/news/24102143.flood-defence-wall-hawick-high-school-car-park-vandalised/>



19th January

2021 Graffiti 'tagging' in Musselburgh causing concern

Source: <https://www.eastlothiancourier.com/news/19012619.graffiti-tagging-musselburgh-causing-concern/>



Source – John Blower Photography April 2023 – Seawall Lagoons

Subject: (0739) Objection - [REDACTED]
Sent: 25/04/2024, 03:00:44
From: [REDACTED]
To: Musselburgh Flood Protection Objections

Follow Up Flag: Follow up
Flag Status: Completed

Categories: [REDACTED]

You don't often get email from [REDACTED] [Learn why this is important](#)
CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Dear East Lothian Council,
I hope this message finds you well. As a proud resident of Musselburgh [REDACTED] I am deeply invested in the well-being and future of our beloved town. Having moved from [REDACTED], I can confidently say that Musselburgh has become my sanctuary—a place of tranquility, community, and natural beauty. Before I outline my objections to the proposed flood scheme, I want to bring to your attention the provisions of the Equality Act and the importance of accommodating individuals with specific learning disabilities. [REDACTED]

[REDACTED] are afforded equal opportunity to participate in the objection process. I trust that my request for a reasonable adjustment will be upheld under the equality act guidelines and would appreciate an acknowledgement of this.

My love for Musselburgh stems not only from its stunning coastline and picturesque countryside but also from the vibrant community spirit that permeates every aspect of life here. The recent achievement of bathing status for our sea has been a cause for celebration among residents, drawing visitors and friends to our shores to bask in the beauty of our revitalized coastline.

However, my joy and pride in our town are overshadowed by grave concerns about the proposed flood scheme. As someone who finds solace and mental well-being in the natural environment, I am deeply troubled by the potential consequences of this scheme on our town and its residents.

I object vehemently to the proposed flood scheme and its potential to devastate our community. The thought of seeing our beloved town engulfed by flood walls and concrete barriers fills me with dread. Musselburgh is not just a place to live; it is a home—a haven for those seeking refuge from the stresses of urban life.

My anxiety about the proposed flood scheme is compounded by the uncertainty it brings. Many of my friends are actively considering moving to Musselburgh, drawn by its charm, its proximity to the city, and its promise of a better quality of life. However, they are understandably hesitant to commit until the fate of the flood scheme is decided. The prospect of investing in a town threatened by such a scheme is a deterrent for them, and I fear that if the scheme proceeds, it will deter others from making Musselburgh their home.

Musselburgh has recently been recognized as one of the Times top 10 places to invest in, and rightly so. It has the potential to become an exemplar of innovation and sustainability—a beacon of hope in an increasingly uncertain world. However, this potential will be squandered if we allow the flood scheme to proceed unchecked.

I implore the council to consider the long-term implications of the flood scheme on our town and its residents. We have the opportunity to preserve and enhance the beauty of Musselburgh for generations to come, but this can only be achieved through sustainable, community-led solutions—not through the imposition of ill-conceived flood defences.

Specifically, I object to the following aspects of the proposed flood scheme:

Lack of Nature-Based Solutions: The exclusion of nature-based flood management solutions, despite compelling evidence presented in the Dynamic Coast report, is deeply concerning. Nature-based solutions offer effective flood mitigation while contributing to ecosystem health and resilience.

Unclear Consultation Process: The rushed timeline and complex technical documentation have made it exceptionally challenging for residents, especially those with specific learning disabilities like dyslexia, to fully engage in the objection process. The lack of accessible printed materials further exacerbates this issue, effectively excluding vulnerable individuals from meaningful participation.

Transparency Issues: Denial of Freedom of Information requests related to public feedback, coupled with a lack of transparency regarding project costs and decision-making processes, undermines public trust and prevents residents from making informed decisions about the scheme's merits.

Environmental Concerns: The proposed felling of ancient woodlands and potential disruption to local ecosystems pose significant threats to biodiversity and environmental sustainability. Additionally, the scheme's reliance on hard engineering solutions overlooks the potential of more environmentally friendly alternatives.

Impact on Community Well-Being: The scheme's potential to deter prospective residents and investors, coupled with concerns about property devaluation and disruption to community cohesion, raises serious questions about its long-term viability and impact on our town's well-being.

Let us work together to protect Musselburgh from the threat of flooding while preserving its natural beauty and charm. Our town deserves nothing less.

Yours sincerely

[Redacted signature]

--
[Redacted name]

pronouns: they/she

[Redacted contact information]

Subject: (0740) Flood defences objection
Sent: 25/04/2024, 07:11:34
From: [REDACTED]
To: Musselburgh Flood Protection Objections

Follow Up Flag: Follow up
Flag Status: Completed

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Service Manager – Governance
Legal Services
East Lothian Council
John Muir House
Haddington
EH41 3HA

Dear Sir / Legal Services

I am writing to object to the proposed Musselburgh Flood Protection Scheme 2024. I have an interest in the land affected because I regularly ride my horse on the bridle path that will be decimated by the construction of the debris catcher across the Esk on the west side of the overbridge that carries the A1 dual carriageway and the works to construct access roads to the debris catcher.

These are my reasons for objection to The Scheme:

IMPACT ON NATURE DIVERSITY AND WILDLIFE. The loss of many mature trees and beautiful woodland. Have you done an impact assessment on the wildlife?

1. **Traffic Generation.** The road the debris catcher construction traffic and subsequent debris catcher maintenance traffic propose to use is a narrow private road and used by horse riders, walkers with prams and small children, the movement of livestock, a low volume of cars accessing the livery yard and light farm traffic. It has a speed limit of 10mph. Vehicles must not pass horse riders or horses being led any faster than 10mph. Using this narrow private road for heavy construction and maintenance vehicles will put the other road users at risk and will create a health and safety issue. It will also damage the already fragile road surface.

2. **Unnecessary cost:** I really object to tax payer money being wasted to create a new access road to the Esk when there is already a **fit for purpose, flatter tarmac access road from Cowpits Road**. The proposed site of the debris catcher currently has no access for vehicles of any sort. It is an unsurfaced rural path and totally unsuitable for heavy vehicles. The plans show the access road will need to be constructed over a soft grass livestock field, then through an ancient and well established woodland, down a steep fragile river path that is not robust enough to support heavy construction vehicles and subsequent heavy machinery and vehicles needed to clear the debris catcher. The entire river banking would need to be reinforced before it could be used for this purpose. **There is already an asphalt access road to the Esk in Grove which has easy access from Cowpits Road.** Therefore a cheaper and less damaging option would be to place the debris catcher to the east of the A1 dual carriageway over bridge, in the vicinity of the railway over bridge and use the existing asphalt access track/road along the Grove to construct the debris catcher and subsequent debris removal. However removing any type of debris catcher from the scheme is the best option because wherever one is constructed, there will be an unacceptable cost and it will cause flooding in the areas upstream where there was previously none. It simply shifts the problem and does not provide a solution.

3. **Environmental Impact:** The construction of the access road for the debris catcher will result in the loss of grazing land. The construction and extraction process will disturb and worry the livestock. It will damage and destabilise the fragile high river bank path resulting in landslips.

Hundreds of trees and the natural path will need to be destroyed in order to build a road wide enough for the construction and debris extraction vehicles. The destruction of trees and natural habitat will be damaging to the wildlife in this location. There are deer, foxes, hare, buzzards, bats, squirrels, possibly badgers and other creatures too numerous to list in this woodland. In this world of climate change activists we are supposed to be saving trees not destroying them for a poorly designed flood protection plan that is likely to cause more flooding and environmental damage than if no action was taken at all. It is an absolute disgrace that the designers have concluded that it is acceptable to destroy this area of natural beauty and the wildlife that occupies it when the

proposed debris catcher will actually do more harm than good. The proposed mitigation plans are woefully inadequate and poorly thought out,

4. Flood Risk: Common sense and logic would make a sensible person conclude that the proposal to narrow the river in Musselburgh is more likely to cause flooding in Musselburgh and also damage the environment by causing areas upstream to flood. This will increase erosion and cause multiple landslips along the already fragile and crumbling Esk Valley.

Additionally my experience of debris traps is that when they are blocked and a dam is formed, there are never any Council resources available to deal with the blockages in a timely manner and the surrounding areas become severely flooded. The debris catcher will ensure more areas along the Esk will be flooded than before. The plans for a debris catcher should be removed completely from the scheme. This scheme will push the problems further down the river. THIS IS NOT A SOLUTION BUT AN ADDITIONAL PROBLEM.

5. Loss of Amenity / Health and Well Being and Disturbance. The construction works would be detrimental to my mental and physical health and wellbeing. The proposed site of the access road and the debris catcher will spoil my enjoyment of the countryside. I ride my horse on this woodland bridle path and ford the river at this point several days a week. Building the access road and debris catcher in this location would rob me of this healthy activity. There are around a hundred or so horse riders that regularly ride horses on the bridle path and ford the river. Robbing them of this natural path and the ability to ford the river to enjoy the bridle path on the opposite side will negatively affect their health and wellbeing too.

Disturbance: The construction traffic and all maintenance vehicles will be using a narrow quiet road that I use to ride my horse on for my mental and physical health and wellbeing. This will cause a noise and dust nuisance to me which does not currently exist.

6. The Musselburgh Flood Protection Scheme design has conveniently ignored the requirements for horse riders of which there are hundreds in the local area. The design of the scheme and its active travel plans excludes and discourages horse riders the majority of whom are women and children. The loss of amenity for horse riders must not be ignored and the scheme should be redesigned so horse riders are included and catered for.

7. Lack of Consultation: There has been no attempt to communicate the proposal for the access road and debris catcher to those who access the Dalkeith Park Estate from the Monkton Gate from Old Craighall. There has been information available at the Whitecraig Gate. Why was the same information not provided at the Monkton Gate where the impact of the Scheme is going to be much more damaging and serious?

Yours Faithfully

A large black rectangular redaction box covering the signature area of the letter.

Sent from my iPhone

Subject: (0741) Serious Concerns/Objection
Sent: 25/04/2024, 10:05:49
From: [REDACTED]
To: Musselburgh Flood Protection Objections

Follow Up Flag: Follow up
Flag Status: Completed

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[REDACTED]

25th April 2024

Carlo Grilli
Service Manager – Governance Legal Services
East Lothian Council
John Muir House
Haddington
EH41 3HA

mfpsobjections@eastlothian.gov.uk
Dear Carlo Grilli

I am writing to express my objections to the proposed floodwall scheme in our area. After reviewing the information provided regarding the scheme, I have several concerns that I believe warrant serious consideration before proceeding with the project.

Cost Concerns:

The lack of detailed cost breakdowns and the uncertainty surrounding the total cost of the scheme raise significant questions about financial accountability. Given the substantial investment required and the impact on essential community services, such as care for the elderly and cultural amenities, it is imperative that a clear and transparent cost plan is established. Additionally, the absence of cost caps and the potential for escalating expenses demand careful scrutiny to ensure responsible fiscal management.

Transparency and Process:

The lack of transparency surrounding the decision-making process, including the limited access to comprehensive environmental impact assessments and the absence of public debate on alternative options, undermines public trust in the project. It is concerning that appointed engineers have been granted authority over the environmental assessment without adequate oversight or opportunity for challenge. The blurred lines between the Council and the project team further exacerbate concerns regarding accountability and procedural integrity.

Science/Data and Evidence Gaps:

The reliance on a singular flood protection model without consideration of alternative scenarios or consultation on scientific data undermines the robustness of the scheme. Residents' requests for access to the underlying scientific calculations have been disregarded, raising questions about the validity and transparency of the project's scientific basis. Furthermore, the exclusion of natural flood management techniques and the dismissal of alternative flood prevention strategies call into question the project's adherence to evidence-based decision-making and environmental sustainability.

Multiple Benefits and Active Travel:

The entanglement of the floodwall scheme with the Musselburgh Active Town proposals raises concerns about the integration of flood protection objectives with broader community initiatives. The lack of clarity regarding the cost and impact of the MAT scheme, coupled with uncertainties surrounding planning permissions and project scope, underscores the need for a comprehensive and transparent assessment of multiple benefits and active travel objectives.

General Amenity, Health, and Well-being:

The anticipated disruption and potential damage to historic properties, coupled with the loss of community access to common good land during the construction phase, highlight the adverse impacts of the scheme on general amenity, health, and well-being. The discrepancy in the number of properties deemed "protected" by the scheme and the variability in documented figures underscore the need for rigorous scrutiny and evidence-based decision-making to ensure the scheme's viability and community benefits.

In conclusion, I urge the council to reconsider the proposed floodwall scheme in light of the concerns raised above. It is essential to prioritize transparency, fiscal responsibility, and evidence-based decision-making to safeguard the interests of the community and ensure the long-term sustainability of flood protection measures.

Thank you for considering my objections. I look forward to your response and further dialogue on this matter.

Sincerely,

[REDACTED]

Subject: (0742) Re: Objection to the high cost of repairs to the Ash Lagoon Seawall

Sent: 25/04/2024, 10:40:57

From: [REDACTED]

To: Musselburgh Flood Protection Objections

Categories: [REDACTED]

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Please would you send an acknowledgement that the letter below was received before the close of the objection time on 24 April 2024.

With thanks and regards,

[REDACTED]

Sent from [Outlook](#)

From: [REDACTED]
Sent: 24 April 2024 17:01
To: mfpsobjections@eastlothian.gov.uk <mfpsobjections@eastlothian.gov.uk>
Subject: Objection to the high cost of repairs to the Ash Lagoon Seawall

[REDACTED]

To: Carlo Grilli
Service Manager – Governance
Legal Services
East Lothian Council
John Muir House
Haddington
EH41 3HA

23 April 2024

mfpsobjections@eastlothian.gov.uk

Dear Mr Grilli,

Regarding: Objections to high cost of repairing to the Ash Lagoon Seawall

As a tax payer I strongly object to the fact that the budget for repairs to the Ash Lagoon Seawall (ALS) is about £20K per m, an exorbitant cost that hasn't been justified for the work envisaged. And 20% of the cost will come from the Council's capital budget, at a time when the Council's resources are already severely stretched.

The cost of repairs to the ALS should be undertaken by the present owner, Scottish Power, as per the Musselburgh Agreement. This would substantially lower the budget needed to make additional repairs that extend the life of the ALS.

I ask the Council to confirm that the parapet of the ALS will be in a good state of repair when the Council becomes the owner of the ALS. This will ensure that the life of the parapet is extended until such time that it becomes clearer the extent to which sea level is likely to rise later this century.

It is a matter of public interest that the public's taxes are used effectively and at the moment I believe this is not the case with respect to the ALS.

I look forward to a detailed reply to the letter.

Please acknowledge receipt of this letter.

Yours sincerely,

Sent from [Outlook](#)

Subject: (0743) Re: Objection regarding lack of ramp to access beach at the back lane off [REDACTED]
Sent: 25/04/2024, 10:42:26
From: [REDACTED]
To: Musselburgh Flood Protection Objections

Categories: [REDACTED]

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Please would you send an acknowledgement that the letter below was received before the close of the objection time on 24 April 2024.

With thanks and regards,

[REDACTED]

Sent from [Outlook](#)

From: [REDACTED]
Sent: 24 April 2024 19:28
To: mfpsobjections@eastlothian.gov.uk <mfpsobjections@eastlothian.gov.uk>
Subject: Objection regarding lack of ramp to access beach at the back lane off [REDACTED]

To: Carlo Grilli
Service Manager – Governance
Legal Services
East Lothian Council
John Muir House
Haddington
EH41 3HA

23 April 2024

mfpsobjections@eastlothian.gov.uk

Dear Mr Grilli,

Regarding: Objection regarding lack of ramp to access beach at the back lane off [REDACTED]

I write to object to the lack of a ramp needed to access to the beach where the seawall meets the rock revetement on the back lane off [REDACTED].

This location is used by large numbers of people and without it they would have to make a 400 - 500m detour to reach the same place on the beach.

A map showing the location is attached below.

I shall appreciate acknowledgement by both email and in writing that this Letter of Objection has been received.

Yours sincerely,

[REDACTED]



Sent from [Outlook](#)

[Redacted]

25 April 2024

Carlo Grilli
Service Manager – Governance Legal Services
East Lothian Council
John Muir House
Haddington
EH41 3HA

[Redacted]

Dear Carlo Grilli

I am writing to object to the recently published Musselburgh Flood Protection Scheme.

I will not be directly affected, as I live in [Redacted]. However, I am astounded that the council rarely if ever clear the drains in Musselburgh (as well as, presumably, the rest of East Lothian) while pushing forward with this expensive scheme, the cost of which I am confident will exceed the current budget by far. While maintaining the drainage system is basic good sense and a key responsibility of councils, most councils seem to have stopped doing so in order to save costs, neglecting the (at the least) inconvenience caused when there is even moderately heavy rainfall, as well as the huge expense that will inevitably be incurred in the long-term, "fixing" the drains. When ELC neglects the drainage system while proposing to spend a very large sum of money on coastal protection it a) seems to be the worst kind of housekeeping and b) flies in the face of the "urgency" with which the flood prevention scheme is being forced through. As a council taxpayer I object to services being cut back or abolished altogether while the council pulls the stops out in order to promote their hugely expensive flood prevention scheme.

One does begin to wonder what a council is for, and who it is supposed to serve – residents or the council and partners themselves? I believe the “consultation” has not been as wide as the council try to make out. People are too tired from having to work flat out and/or are too cynical to get involved in local politics and, cynic that I too am these days, I believe this suits the council.

No doubt this project will go ahead; from the outset most people who object to the scheme and have put huge effort into setting up meetings etc have reckoned the project will go ahead no matter what evidence is produced, no matter how many local people oppose the scheme. I hope the end result is not as terrible as many fear, but one product of all this will be even more cynicism and even less engagement by the community with “their” council and local matters, to the detriment of everyone.

In any case, thank you for your attention. I would be grateful if you could acknowledge receipt of my letter of objection in writing, advising me of next steps, and timescales.

Yours sincerely

████████████████████

[REDACTED]

25/4/2024

Carlo Grilli^[L]_[SEP]
Service Manager – Governance^[L] Legal Services^[L]_[SEP]
East Lothian Council^[L]_[SEP]
John Muir House^[L]_[SEP]
Haddington^[L]_[SEP]
EH41 3HA^[L]_[SEP]

[REDACTED]

Dear Carlo Grilli

I am writing to object to the recently published Musselburgh Flood Protection Scheme.
The proposals are way out of the realms of common sense.

The risk v the cost, allied to firstly inconvenience, & then daily loss of amenity for the town, is extremist & wasteful.

Measures to combat the risk of flooding would be sensible, but should be specific, with the use of natural measures.

Also, technologies are constantly moving forward, & the brutal proposals currently envisaged will soon be overtaken, & would prove to be a disgusting waste of money.

I cannot stress how important to the mental health of the people of

Please acknowledge receipt of my letter of objection, in writing. Please advise me of next steps, and timescales, I would like communication to be via email or post.

Yours Faithfully



Include your first and second name here

Subject: (0746) Re: Objection to the Proposed Musselburgh Flood Protection Scheme

Sent: 25/04/2024, 11:18:33

From: [REDACTED]

To: Musselburgh Flood Protection Objections

Follow Up Flag: Follow up
Flag Status: Completed

You don't often get email from [REDACTED]. [Learn why this is important](#)

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Please add my address to be objection:



On Wednesday, 24 April 2024 at 12:07, [REDACTED] > wrote:

Carlo Grilli
Legal Services
East Lothian Council
John Muir House
Haddington EH41 3HA

To whom it may concern

I am writing to object to the Musselburgh Flood Protection Scheme. I am a [REDACTED] with a lifetime of study and interest in wetland ecology spanning academia and public service. I have serious concerns about many aspects of this particular scheme, which are not confined the lack of a clear assessment of the impacts on natural ecological functioning of the river system, but include wider concerns about the lack of transparency in decisions and the fiscally irresponsible use of tax payers money. While I live in the East of the County, I visit Musselburgh regularly to take in the riverside walks and enjoy the historic heritage, both of which are going to irrevocably and deleteriously impacted.

Science and Data Deficiencies:

I will start with the exclusion of any serious natural flood management techniques (tokenistic ones excluded), which casts doubts on the credibility of this scheme, which seems to me be driven by engineering hubris and far less on science or facts. Nature based solutions are not just a fad and are endorsed at all levels, including by the Scottish Government. This scheme seems to have a systemic disregard for sustainability (steel and concrete being the most carbon intensive building materials) but also those very nature-based solutions that could offer much more effective and environmentally friendly flood mitigation strategies.

The absence of alternative scenarios and the refusal to provide comprehensive data undermine the credibility of the flood protection proposals. Scottish Government advocates the consideration a range of scenarios, yet the council relies on a single model, which disregards best practice. It instead accepts an overly-engineered, insentitive and expensive solution that risks not just the environment but any semblance of fiscal responsibility.

The decision-making process lacks transparency, e.g. the undisclosed Dynamic Coast report and the dismissal of repeated requests for access to scientific data. The manipulation of flood defense heights to fit the predetermined solution is circular and calls into question the integrity of the entire project, leaving aside the hideous landscape scale impact of the engineering structures.

Transparency and Process Issues:

The roles of project consultants and engineers, coupled with the lack of public scrutiny, raise also concerns about conflicts of interest and accountability. The approval of the scheme by the council without full access to the Environmental Impact Assessment shows a lack of due diligence and transparency in the decision-making process, another potential breach of international convention, that could expose ELC to judicial review.

Attempts by local residents to engage have only been met with bureaucratic hurdles, with responses directed to the project team, blurring the lines of responsibility and accountability. The failure to address public concerns and

provide meaningful avenues for participation undermines trust in the council's ability to represent the interests of the community.

Active Travel Integration:

The integration of Musselburgh Active Town proposals with the flood protection scheme is opaque. Without transparent cost assessments it undermines the credibility of both initiatives. The lack of clarity regarding the cost and scope of the MAT scheme, a tangential relationship to flood protection objectives, raises more questions than it answers. Furthermore, the inclusion of MAT components (a bridge) that do not contribute to flood protection detract from the scheme's efficacy and diverts resources from more pressing needs. The expansion of MAT proposals beyond initial consultations without public consent further exacerbates concerns about accountability and transparency.

General Amenity, Health, and Well-being Impacts:

The prolonged construction period and disruptive nature of the project pose significant threats to the well-being and quality of life of residents. Historic properties are at risk from construction activities, while disruptions to Common Good land deprive the community of vital recreational and semi natural or open spaces. The quality and integrity of the Conservation area is at serious risk. The Conservation Area and river side are the central attributes that make this town liveable in and attractive to tourists.

There seems to be inconsistency in the number of properties actually protected by the scheme. I could not find robust evidence about the project's efficacy in delivering any broader tangible benefits to the community.

Cost Concerns:

There's a serious lack of transparency regarding costs and the absence of a ceiling raises doubts about the fiscal responsibility and feasibility of the scheme. With millions already spent on design and what appear to be misleading consultations, there's also a serious misalignment with current public needs and priorities. Unchecked the escalation of costs is inevitable. Furthermore, the notion that securing funding now is the only option, disregards the availability of future funding, which leads to unjustified haste in decisions. Without thorough consideration of the range of alternatives, which are potentially more cost effective and less damaging to the natural and built heritage, the scheme's cost benefit assessment is undermined.

Conclusion:

In conclusion, the proposed flood protection scheme suffers from too many deficiencies, ranging from fiscal irresponsibility and scientific inadequacies to transparency and misalignment of local priorities.

I'd appreciate an acknowledgement that you have received this.

Kind regards



Sent with [Proton Mail](#) secure email.

Subject: (0747 NO ADDRESS) Musselburgh flood protection scheme

Sent: 25/04/2024, 12:25:05

From: [REDACTED]

To: Musselburgh Flood Protection Objections

Follow Up Flag: Follow up

Flag Status: Completed

Categories: NO ADDRESS

You don't often get email from [REDACTED]. [Learn why this is important](#)

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Dear Sir/Madam,

I would like to object to the proposed Musselburgh flood protection scheme for the following reasons;

1. Design - The scheme uses two different climate change predictions for coast and river with no scientific explanation for this. It is an inflexible response to what we know will be an unpredictable future, rather than adopting an iterative approach, now considered more appropriate to deal with this level of uncertainty and human adaptation/mitigation efforts.
2. Process - The full Environmental Impact Assessment was not available for consideration by council members at the meeting on 23 January 2024 when a decision was made to notify the proposed scheme, despite identifying significant negative impacts.
3. Process/lack of transparency - Throughout the process so far there has been a lack of independent specialist review which is needed for a scheme of this size, cost and complexity, which it is stated will have many adverse impacts on Musselburgh and nearby.
4. Process - The options appraisal process has excluded catchment-wide natural flood management entirely, reportedly due to the flawed limitations of Scottish Government/COSLA uncapped (Cycle 1) funding being available only for infrastructure, and because NFM solutions are not yet proven at relevant scales (eg. the Eddleston project). We think more time is needed to build the Esk Forum and collect more data for a catchment-wide approach. Cycle 2 funding would reportedly allow for development of more environmentally friendly flood resilience options to be considered, in line with the draft flood resilience strategy for Scotland due to be published later this year. This strategy reflects a proposed change in policy away from 'fixing floods' and recommending planning policies change to focus on making local communities more resilient instead.
5. Cost to taxpayers and lack of transparency - East Lothian Council appears to be going ahead with the around £100 Million proposed scheme despite having one of the highest budget deficits in the UK, which is likely to disproportionately influence its decision-making in favour of potential financial gain. ELC has not confirmed whether it intends to sell Eskside Common Good Land protected by the scheme following construction for housing development. The draft flood resilience strategy recommends that 'New developments in areas of high flood risk (current and future) are avoided and flood plains give space for water'.
6. There are 4 other potentially vulnerable areas for flooding in East Lothian (see Flood management plan Forth Estuary). We would argue a catchment-wide design including natural flood management for Musselburgh is crucially important to set the standard for an environmentally sustainable flood resilience throughout the county. This overengineered and costly proposal relying only on hard engineering solutions is highly unlikely to provide a sustainable model for addressing flood risk in other areas of East Lothian.
7. Lack of transparency over negative impacts: The proposed hard engineering scheme will potentially increase risk of flooding and climate change due to river narrowing, trapping of floodwaters that breach the walls and greenhouse gas emissions during construction and maintenance phases. It was ingenuous of the project team to minimise mention of some negative impacts in the non-technical EIA summary, and didn't even provide a figure for the project estimated greenhouse gas emissions of 1,658 tCO₂e, largely related to concrete and stone construction. The use of concrete is in direct contrast with East Lothian Council's climate goals for a low carbon and sustainably run county. Building coastal walls can also increase flood risk in other areas e.g. reflected waves from walls causing erosion further along the coast. The recently published Dynamic Coast report on coastal climate change at Musselburgh questions the building of coastal walls.
8. Biodiversity net loss: Mitigation for potential loss of biodiversity appears to rely purely on species appropriate shrub planting along riverbanks in the town centre, which smacks of window-dressing. Ancient woodland, broadleaf and mixed non-ancient woodland cannot be replaced within timescales needed to prevent climate change. Listed breeding wetland bird populations within areas of the estuarine SPA and Ramsar sites will likely be endangered further and the riverine/estuarine habitats will be damaged long term, adversely affecting biodiversity. We object to the significant impact of disturbance on wetland birds and their habitat in the Firth of Forth, particularly in light of the outbreaks of Avian Influenza (AI) in recent years. It is currently not fully understood how AI influences wader populations in this area (NatureScot Scientific Advisory Committee Sub-Group on Avian Influenza Report on the H5N1 outbreak in wild birds 2020-2023), and major disturbance through development should not be

undertaken when the full impact cannot be assessed. This biodiverse habitat is currently enjoyed and respected by locals and wildlife tourists from far and wide.

9. Community engagement/Process - The short timescale for objections, complexity, confusing labelling of the huge volume of technical EIA reports, and limited access to printed documents (excluding people who work full time hours) has prevented the community from fully understanding and objecting to the proposed scheme.

10. Outdated design approach - The scientific evidence from catchment-wide flood management schemes suggests there are multiple successful alternative options which could have been included, such as floodplain restoration, river wiggling, beaver-built leaky dams and riverside/coastal planting of indigenous vegetation across the catchment. The design makes minimal attempts to meet updated National Planning Framework 4 guidance for construction projects to provide biodiversity net gain.

11. Invasive species - We object to the major impact that is likely to occur of the spread of invasive species, particularly Japanese knotweed, Himalayan balsam and giant hogweed. No details are provided about managing the likely spread of Japanese knotweed and Himalayan balsam as a result of construction, which is not permitted under the Invasive Non-native Species (EU Exit) (Scotland) (Amendment etc.) Regulations 2020. Just stating that an 'ecological management plan' will be created gives us no confidence that 'No significant residual effects predicted' without evidence of how this might be achieved.

12. Proposed active travel routes - while we welcome development of active travel routes generally to potentially reduce carbon emissions, on balance an extra bridge at the river mouth near the SPA and Ramsar site habitat will clearly adversely impact local nesting wetland birds, and the proposed 5 metre wide AT path along the river will result in significant tree loss (a narrower path works now).

We would like to see a Public Local Inquiry in light of recent changes in flood management policy, national planning policy, coastal climate change advice and local objections.

Please acknowledge receipt of my letter of objection, in writing or by email. Please advise me of next steps, and timescales.

Yours faithfully,



Subject: (0748) Re: Objection regarding lack of ramp to access beach at the back lane off [REDACTED]
Sent: 25/04/2024, 13:40:38
From: [REDACTED]
To: Musselburgh Flood Protection Objections

Categories: [REDACTED]

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

I still haven't received an acknowledgement that my letter of objection has been received.

Regards,
[REDACTED]

Sent from [Outlook](#)

From: [REDACTED]
Sent: 25 April 2024 09:42
To: mfpsobjections@eastlothian.gov.uk <mfpsobjections@eastlothian.gov.uk>
Subject: Re: Objection regarding lack of ramp to access beach at the back lane off [REDACTED]
Please would you send an acknowledgement that the letter below was received before the close of the objection time on 24 April 2024.

With thanks and regards,
[REDACTED]

Sent from [Outlook](#)

From: [REDACTED]
Sent: 24 April 2024 19:28
To: mfpsobjections@eastlothian.gov.uk <mfpsobjections@eastlothian.gov.uk>
Subject: Objection regarding lack of ramp to access beach at the back lane off [REDACTED]

To: Carlo Grilli
Service Manager – Governance
Legal Services
East Lothian Council
John Muir House
Haddington
EH41 3HA

23 April 2024

mfpsobjections@eastlothian.gov.uk

Dear Mr Grilli,

Regarding: Objection regarding lack of ramp to access beach at the back lane off [REDACTED]

I write to object to the lack of a ramp needed to access to the beach where the seawall meets the rock revetement on the back lane off [REDACTED].

This location is used by large numbers of people and without it they would have to make a 400 - 500m detour to reach the same place on the beach.

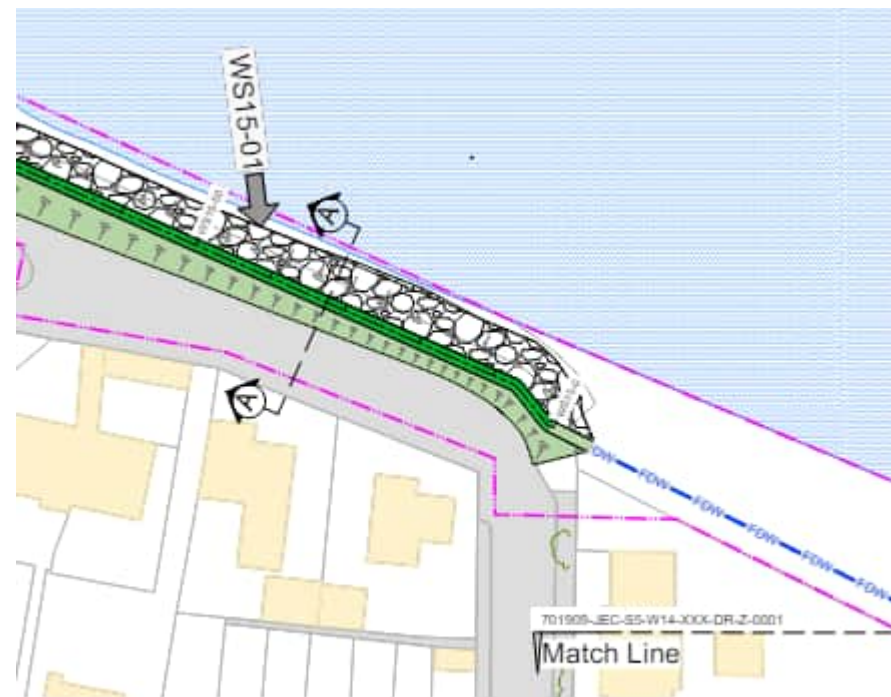
A map showing the location is attached below.

I shall appreciate acknowledgement by both email and in writing that this Letter of Objection has been received.

Yours sincerely,

[Redacted Signature]

See address above



Sent from [Outlook](#)

Subject: (0749) Flood Scheme Objection
Sent: 25/04/2024, 14:12:53
From: [REDACTED]
To: Musselburgh Flood Protection Objections

Follow Up Flag: Follow up
Flag Status: Completed

[You don't often get email from [REDACTED] Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

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[REDACTED]

Please be advised that I am submitting this e-mail in order for ELC to be notified that I am objecting to the Flood Scheme Program for the following reasons:

1. The cost of the scheme is absolutely ridiculous/eyewatering and the money can be spent on other areas in Musselburgh of which is in badly need of repair/upkeep
2. The objections are far greater than the ones for this scheme to go ahead
3. The council is paid by the public purse and needs to listen to what locals are asking or saying
4. The amount of costs for reviews/inspections are ridiculous
5. The building of such walls will ruin the landscape of what beauty we have remaining
6. The upkeep over the years will run into thousands while Musselburgh Highstreet and other local areas decline
7. Nature areas will be ruined with the go-ahead of this project
8. The walls will be vandalised in due time

The above are a but a few I have submitted, many more reasons can be submitted if required but I highly doubt you will ask for them.

Your Frustrated Resident

[REDACTED]

Subject: (0750) Re: Objection regarding lack of ramp to access beach at the back lane off [REDACTED]
Sent: 25/04/2024, 21:34:05
From: [REDACTED]
To: Musselburgh Flood Protection Objections

Categories: [REDACTED]

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I am sending this Letter again as I did not receive an acknowledgement when I sent it last night.

Thanks.

Sent from [Outlook](#)

From: [REDACTED]
Sent: 24 April 2024 19:28
To: mfpsobjections@eastlothian.gov.uk <mfpsobjections@eastlothian.gov.uk>
Subject: Objection regarding lack of ramp to access beach at the back lane off [REDACTED]
[REDACTED]

To: Carlo Grilli
Service Manager – Governance
Legal Services
East Lothian Council
John Muir House
Haddington
EH41 3HA

23 April 2024

mfpsobjections@eastlothian.gov.uk

Dear Mr Grilli,

Regarding: Objection regarding lack of ramp to access beach at the back lane off [REDACTED]

I write to object to the lack of a ramp needed to access to the beach where the seawall meets the rock revetement on the back lane off [REDACTED].

This location is used by large numbers of people and without it they would have to make a 400 - 500m detour to reach the same place on the beach.

A map showing the location is attached below.

I shall appreciate acknowledgement by both email and in writing that this Letter of Objection has been received.

Yours sincerely,

[REDACTED]
See address above



Sent from [Outlook](#)

Subject: (0751) Proposed Flood Wall Objection
Sent: 27/04/2024, 19:25:11
From: [REDACTED]
To: Musselburgh Flood Protection Objections

Follow Up Flag: Follow up
Flag Status: Completed

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CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Dear Sir/Madam,

I object to the proposed flood wall concerning Musselburgh.

It is not a right of others to take away our right to nature. You are impeding upon nature with your imposed plan and you have no right to do that.

The people of Musselburgh deserve access to nature and this will ruin it. If you want to prevent flood, look at nature based ways of doing it.

This is an impoverished area as it is and your plan will ruin a natural beauty, of which these people can't afford.

I object specifically because:

- I live in [REDACTED] by the coast and I see the sea from all windows of my home. You will take away from this. Nature affects the way we feel and instead I'm going to be looking at a cement wall.
- I am directly at risk of flooding and I still object because it takes away from our right to nature.
- You're taking away from others right to nature.
- We have not been supported as a community by the very councillor we elected- [REDACTED]. She has only recently contested and therefore we deserve the right for a pause to this flood scheme. See below.

We have as a community tried to reach out to councillors. Specifically, the councillor who I voted for: [REDACTED], the [REDACTED] councillor who has not listened to objections, despite the carbon cost but it is only in recent times-that she's decided to join our cause. All in the name of self-promotion. Therefore, politics have gotten in the way of a public interest.

Please acknowledge receipt of this email and notify me of next steps and timescales.

[REDACTED]

Faithfully,

[REDACTED]

Subject: (0752 NO ADDRESS) Objection proposed Musselburgh Flood Protection Scheme 2024

Sent: 28/04/2024, 19:34:43

From: [REDACTED]

To: Musselburgh Flood Protection Objections

Follow Up Flag: Follow up

Flag Status: Completed

Categories: NO ADDRESS

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Dear Sir / Legal Services

I am writing to object to the proposed Musselburgh Flood Protection Scheme 2024. I have an interest in the land affected because I regularly ride my horse on the bridle path that will be decimated by the construction of the debris catcher across the Esk on the west side of the overbridge that carries the A1 dual carriageway and the works to construct access roads to the debris catcher.

These are my reasons for objection to The Scheme:

1/ Disturbance: The construction traffic and all maintenance vehicles will be using a narrow quiet road that I use to ride my horse on for my mental and physical health and wellbeing. This will cause a noise and dust nuisance to me which does not currently exist.

2/ Traffic Generation: The road the debris catcher construction traffic and subsequent debris catcher maintenance traffic propose to use is a narrow private road and used by horse riders, walkers with prams and small children, the movement of livestock, a low volume of cars accessing the livery yard and light farm traffic. It has a speed limit of 10mph. Vehicles must not pass horse riders or horses being led any faster than 10mph. Using this narrow private road for heavy construction and maintenance vehicles will put the other road users at risk and will create a health and safety issue. It will also damage the already fragile road surface.

3/ Unnecessary cost: I really object to tax payer money being wasted to create a new access road to the Esk when there is already a fit for purpose, flatter tarmac access road from Cowpits Road. The proposed site of the debris catcher currently has no access for vehicles of any sort. It is an unsurfaced rural path and totally unsuitable for heavy vehicles. The plans show the access road will need to be constructed over a soft grass livestock field, then through an ancient and well established woodland, down a steep fragile river path that is not robust enough to support heavy construction vehicles and subsequent heavy machinery and vehicles needed to clear the debris catcher. The entire river banking would need to be reinforced before it could be used for this purpose. There is already an asphalt access road to the Esk in Grove which has easy access from Cowpits Road. Therefore a cheaper and less damaging option would be to place the debris catcher to the east of the A1 dual carriageway over bridge, in the vicinity of the railway over bridge and use the existing asphalt access track/road along the Grove to construct the debris catcher and subsequent debris removal. However removing any type of debris catcher from the scheme is the best option because wherever one is constructed, there will be an unacceptable cost and it will cause flooding in the areas upstream where there was previously none. It simply shifts the problem and does not provide a solution.

4/ Environmental Impact: The construction of the access road for the debris catcher will result in the loss of grazing land. The construction and extraction process will disturb and worry the livestock. It will damage and destabilise the fragile high river bank path resulting in landslips.

Hundreds of trees and the natural path will need to be destroyed in order to build a road wide enough for the construction and debris extraction vehicles. The destruction of trees and natural habitat will be damaging to the wildlife in this location. There are deer, foxes, hare, buzzards, bats, squirrels, possibly badgers and other creatures too numerous to list in this woodland. In this world of climate change activists we are supposed to be saving trees not destroying them for a poorly designed flood protection plan that is likely to cause more flooding and environmental damage than if no action was taken at all. It is an absolute disgrace

that the designers have concluded that it is acceptable to destroy this area of natural beauty and the wildlife that occupies it when the proposed debris catcher will actually do more harm than good. The proposed mitigation plans are woefully inadequate and poorly thought out,

5/ Flood Risk: Common sense and logic would make a sensible person conclude that the proposal to narrow the river in Musselburgh is more likely to cause flooding in Musselburgh and also damage the environment by causing areas upstream to flood. This will increase erosion and cause multiple landslips along the already fragile and crumbling Esk Valley.

Additionally my experience of debris traps is that when they are blocked and a dam is formed, there are never any Council resources available to deal with the blockages in a timely manner and the surrounding areas become severely flooded. The debris catcher will ensure more areas along the Esk will be flooded than before. The plans for a debris catcher should be removed completely from the scheme.

6/ Loss of Amenity / Health and Well Being: The construction works would be detrimental to my mental and physical health and wellbeing. The proposed site of the access road and the debris catcher will spoil my enjoyment of the countryside. I ride my horse on this woodland bridle path and ford the river at this point several days a week. Building the access road and debris catcher in this location would rob me of this healthy activity. There are around a hundred or so horse riders that regularly ride horses on the bridle path and ford the river. Robbing them of this natural path and the ability to ford the river to enjoy the bridle path on the opposite side will negatively affect their health and wellbeing too.

The Musselburgh Flood Protection Scheme design has conveniently ignored the requirements for horse riders of which there are hundreds in the local area. The design of the scheme and its active travel plans excludes and discourages horse riders the majority of whom are women and children. The loss of amenity for horse riders must not be ignored and the scheme should be redesigned so horse riders are included and catered for.

7/ Lack of Consultation: There has been no attempt to communicate the proposal for the access road and debris catcher to those who access the Dalkeith Park Estate from the Monkton Gate from Old Craighall. There has been information available at the Whitecraig Gate. Why was the same information not provided at the Monkton Gate where the impact of the Scheme is going to be much more damaging and serious?

Yours Faithfully



Subject: (0753) objection - late due to illness
Sent: 29/04/2024, 21:14:50
From: [REDACTED]
To: Musselburgh Flood Protection Objections

Follow Up Flag: Follow up
Flag Status: Completed

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MUSSELBURGH FLOOD PROTECTION SCHEME: FORMAL OBJECTION TO EAST LOTHIAN COUNCIL SCHEME

Name [REDACTED]
Address [REDACTED]
Contact [REDACTED]

The reason my objection is late is due to illness.

Please note my objection in terms of the location of my residence. The reason I am objecting:

1. My home is in the floodplain and no property based solutions for flood protection has been discussed with me, which would be far cheaper and less intrusive.
2. The proposed schemes negatively impact my views of the river and of the sea both from my property and from close proximity of my property.
3. The "consultation process" and public meetings which I attended were chaotic and unorganized, and ineffectively led by Jacobs. It felt patronizing and like a box ticking exercise, and this put me off from engaging with the process.
4. Options, and certainly not evidence, of other alternatives has not been supplied for: property based solutions, demountable barriers, additional reservoir use, nature based solutions.
5. The Dynamic Coast report has not fully been taken into account.
6. There will be a long period of disturbance, disruption and noise during demolition and construction.
7. There has been no independent assessment, and only hard engineering solutions have been thoroughly researched and designed for.

Kindest Regards,
[REDACTED]

From: Legal
Sent: 30 April 2024 08:34
To: Musselburgh Flood Protection Objections
Cc: Grilli, Carlo
Subject: (0754 [REDACTED]) MAIL: MFPS Objection letter received yesterday 29/04/24 from [REDACTED]

Attachments: 20240429 MFPS Objection letter from [REDACTED] (LATE).pdf

Categories: [REDACTED], POST, Added to excel spreadsheet

Morning,

The attached arrived yesterday.

Thanks

[REDACTED]

[REDACTED] | Legal | East Lothian Council | John Muir House
| Haddington EH41 3HA | [REDACTED] or
legal@eastlothian.gov.uk

Please note my working days are Monday to Thursday





**MUSSELBURGH FLOOD PROTECTION SCHEME:
FORMAL OBJECTIONS TO THE EAST LOTHIAN COUNCIL SCHEME**

Names: [REDACTED]

Address: [REDACTED]

Contact: [REDACTED]

Legal standing to Object

We are freehold owners of a Category B listed property in a Conservation Area located next to the River Esk and have received the statutory notification (the "Notice") of the proposed flood defence scheme under the Flood Risk Management (Scotland) Act 2009 (the "Act") (the "Scheme") as more fully described in an environmental impact assessment report produced by Jacobs and issued by East Lothian Council (the "Council") in March 2024 (the "EIA").

We have legal standing to object to the Scheme on the basis that we satisfy the definition of a "relevant objector" within paragraph 5(6) of Schedule 2 of the Act. Given paragraphs 1(1)(d) to (f) of Schedule 2 to the Act require a local authority to send direct notification of a proposed scheme to those with an interest in land affected or any other land affected, and we have received such notice and our property is "at risk", confirms our status as a "relevant objector" for the purposes of the Act.

Where any of the objections raised in this letter are, in the opinion of the Council, considered invalid this shall not operate to invalidate any other legitimate objection raised in this letter.

This letter of objection shall be construed as both an objection to the Scheme, and representations regarding the EIA in each case as determined by the context.

Representations and Objections

1. Objection 1: Technical premise of the proposed Scheme design fundamentally flawed:

- i. The Scheme is predicated on a design that is for a 1:200 year event – the heavy engineering design 'consequences' that flow from this decision are significant and adverse. Unlike other towns in Scotland that have flood protection schemes in place (or are actively under consideration), Musselburgh does not have a similar history of regular flooding (the only 0.5% AEP flood event that the town has seen taking place in 1948) for a variety of geological and other reasons- making this assessment of risk (which is not a legislative requirement) unjustified and overly conservative.
- ii. The Scheme is predicated on a "credible worst-case scenario" in relation to climate change, otherwise now known as "Model C" by Jacobs (i.e., present-day flood risk plus three different climate change scenarios, namely: a medium emissions scenario in the 2050s, a high emissions scenario in the 2070s, and a high emissions scenario by 2100). Given the significant uncertainty associated with climate change models (and global warming generally), we object to the premise of these projections on the basis that the proposed Scheme solution not only is based on the most pessimistic interpretations of 'science' available, but the design itself relies heavily on walls and hard engineering that will simply not stand the significant test of time that the assets will be required to exist for until they are fully 'tested' in these extreme scenarios (as can be seen from the existing sea walls that extend along the ash lagoons, that are in

a state of significant disrepair). The cost of constant upkeep and renewal of the Scheme assets has also not been costed for. A more sustainable, responsive and considered approach is required. This objection is supported by a report commissioned by the Council by Dynamic Coast which was clear that further action will certainly be required in order to protect the new defences from erosion – the proposed Scheme gives absolutely no indication of what this might be, including costs, feasibility, or environmental impact over the long term. Rather than proceed with the Scheme as planned, which did not take this into account, the Council (in dialogue with the community) should consider ways to address both flood risk and coastal erosion together.

- iii. Specifics of the modelling data have never been released (nor independently checked or validated) despite repeated requests by members of the community with the necessary expertise to offer a peer review assessment. Public statements by Jacobs such as projections “indicate a rise of around 1.2m in 100 years”¹ are intended to create alarm and distress (and therefore support) within Musselburgh for the Scheme, yet are based on climate change scenarios which far exceed even the worst case scenarios of 5.0°C of warming by 2100, therefore falling within the “high warming, low confidence” range proposed by the latest IPCC 6th Assessment Report (AR6) on climate change and as modelled by NASA in its “Sea Level Projection Tool”. This is an unacceptable manipulation of scientific data (which the Council have at no point ever sought to challenge), which can only be intended only to mislead the public for the benefit of Jacobs justifying what is proposed to be a highly expensive (and therefore profitable) project at the cost of the taxpayer. We therefore object to the fact the Scheme is predicated on highly speculative and generally unsupported interpretations of scientific data and that the Scheme does not comply with the Council’s legislative obligations in respect of the management of public money.
- iv. The rate of erosion predicted by Dynamic Coast along the Musselburgh coastline contradicts the assumption that the defences will last for 100 years. The report’s analysis of erosion on the proposed flood defences showed “direct impact is likely to occur relatively soon, most likely 2030-2040 but potentially earlier” (p.25). This undermines many key aspects of the case for the Scheme, namely:
 - i. the project fails to meet one of its initial stated environmental objectives: that “the scheme will consider the impacts of climate change” (EIA §4.1);
 - ii. it directly contradicts the statement in the EIA (§12.1) that the Scheme assets “have an inherently low vulnerability to climatic factors and the likely variation in these due to climate change. Consequently, this aspect of the climate change assessment is not considered further in this chapter and the focus is on assessing GHG emissions and their potential impact on climate”. Thus, this chapter, as applied to these sections of the proposal, is inadequate and cannot be considered to fulfil the legislative requirements; and
 - iii. the estimates of benefit to cost ratio are now incorrect. Undermining of the proposed coastal defences here will incur much greater maintenance costs

¹ Historical Flooding – Musselburgh Flood Protection

(and currently unaccounted for emissions) and likely reduce the standard of protection.

2. Objection 2: Lack of genuine alternatives (including nature-based solutions (“NbS”) to the proposed Scheme offered

- i. The unanimous exclusion of natural flood management (“NFM”) in October 2023, highlights a lack of willingness to deploy nature-based solutions, and we object on the grounds that this is irrational. We further object to the current proposals from the mouth of the Esk to the Brunstane Burn (work sections 6-16) on the grounds that the expert report commissioned by the Council and produced by Dynamic Coast was not available to Councillors when they voted on the Scheme. The report makes clear that there is a “wider and currently unaddressed future erosion risk... that may threaten the Scheme’s proposed defences and other assets along the town’s frontage”. It must be noted that the Council cast their vote on the preliminary design of the Scheme before having sight of Dynamic Coast’s full assessment. They must now review this information and represent the motion for a second round of votes. Nature based solutions at coast should not be ruled out.
- ii. The Scheme entirely fails to include appropriate catchment NFM measures, with only two small scale reservoirs are proposed to be used but nothing else within the catchment.
- iii. A significant number of suggestions have been put to the consultants (e.g., such as the development of a dune network on the seafront) over the last years but ignored. Commentaries by knowledgeable residents have never ever been replied to. Regarding Jacob’s reports on NFM, the conclusions on the limited role of NFM/NbS are not supported by the very preliminary research undertaken with incomplete models. A note pointing out the limitations was prepared by [REDACTED] and submitted in June 2022. No response has been forthcoming.

3. Objection 3: The Scheme will cause unjustifiable damage to the environment

- i. We object to the current proposals on the grounds that the loss of ancient woodland is unacceptable and the mitigations proposed do not make up for it. The EIA states that 0.33 hectares of ancient woodland will have to be felled in construction of the scheme, while also highlighting that NatureScot has described such habitat as an ‘important and irreplaceable national resource’ (§7.42). Further efforts must be made to avoid this loss during the construction period, in particular, at Pinkie Playing Fields where the ancient woodland is used for forest school and otherwise available to school pupils for their wellbeing and education.
- ii. We object to the current proposals on the basis that the EIA itself identifies potentially “significant” effects in relation to protected species, the spread of invasive species, habitat loss. Moreover, the significant identified in respect of the geomorphology of the waters (during both construction and operational phase of the project) due to loss of channel capacity, inadequate floodplain storage and permanent changes “to the channel width and depth leading to alterations in flow

velocities and discharges” presents unacceptable adverse effects of the Scheme, particularly given the Scheme itself simply cannot be justified in its current guise.

- iii. We object to the current proposals on the grounds that the biodiversity enhancements are not strong enough and further commitments are needed, e.g. catchment biodiversity improvements and consideration given to installation of a rock ramp for Eskmills Weir. The biodiversity enhancements, as required by NPF4, should be far more ambitious and should include some ‘traditional’ Natural Flood Management actions such as tree-planting, pond creation or leaky dam structures in the catchment (these actions being included under biodiversity enhancement in recognition of the fact that their flood reduction impact is uncertain and therefore cannot be the main justification for their inclusion).
- iv. Further biodiversity enhancements relating to the River Restoration project should be included within the town of Musselburgh, including work to improve the water quality of the Mill Lade and Pinkie Burn (both assessed as limited ecological value in the EIA, Ch7), and the installation of a ‘rock ramp’ for fish passage at Eskmills Weir, as recommended by Forth Rivers Trust as ‘having many benefits over other types of fish passage’.
- v. We object to the overall carbon impact of the Scheme as it stands because the proposed mitigations in the EIA (Ch 12) are all described as ‘potential’ actions, or actions that ‘could’ be explored through the proposed Carbon Management Plan. While the EIA gives a range of positive suggestions, without a robust means of enforcing them there is a significant risk that they will be seen as optional.
- vi. No evidence is available about the potential use of materials other than concrete. Tropical hardwoods from internationally certified sources could be used rather than concrete for structures along the river or along the coast. There are suppliers in Scotland with experience of the certification, supply and use of these materials as alternatives to concrete. This would significantly reduce the environmental impact compared with the use of concrete.

4. Objection 4: The Scheme is out of step with current thinking on climate change adaptation and flood risk management

- i. Committing the Council to a particular line of defence for the next 100 years fails to provide the “managed, adaptive approach” that the Scottish Government advises must be taken in areas of coastal change and which the Scheme’s own design statement claims to follow. It also puts unnecessary constraints on the Council’s Coastal Change Adaptation Plan, which is being carried out this year, and which will now have to work around a fixed line of defence without consideration of alternatives, in contradiction to the guidance issued by the Scottish Government around these Plans. We therefore object to the Scheme on that basis.

5. Objection 5: Spiralling costs of the Scheme raise profound questions regarding the management of public money by the Council

- i. No break down of costs has ever been presented to residents to justify the Council Leader and CEO agreeing a now estimated £103.535m in cost for the Scheme. At a

time of fiscal crisis for the Council and cutting of essential services, the exorbitant costs of the Scheme – which have ballooned since original inception - are extremely alarming and we object to the Scheme as taxpayers on that basis given the total failure of the Council to account for this in its spending. The Council has consistently failed to justify and account for how or why the proposed capex is now so high. We object on that basis.

- ii. Minimal operational expenditure appears to have been allowed for maintenance of structures for their planned 100-year design life. This attempt at future proofing fails to understand the level of uncertainty about climate change forecasting and the consequences of weather regimes on particular events and other consequences in light of experience of flood risk from climate change, and the consequential changes along the coast and in the catchment.
- iii. The repair/replacement of the sea wall embracing the lagoons should not be included in the Scheme. This is a matter of private negotiation and resolution between the private owner, Iberdrola/ Scottish Power, and the Council, on the basis presumably that the company has responsibility for ensuring the security of the sea wall and safe storage of the pulverised fly ash stored behind it. The Council have, however, failed to provide any comfort on this critical point and provided only obfuscation when questioned on it. We object on the basis of procedural impropriety.

6. Objection 6: Absence of independent scrutiny raises questions over whether the Scheme is delivering an optimal solution and proper use of public money

- i. The consultants have publicly stated that all assessments have been done internally by Jacobs staff. All of the paperwork made available at the Brunton Hall in March/April 2024 is Jacobs 'material with no evidence of any external independent appraisal.
- ii. Evidence of appraisal by SEPA has not been presented to residents. No independent assessment of the Scheme has been presented to either the Councillors or the public. It is entirely appropriate to use the phrase 'the consultants are marking their own homework' which is entirely objectionable.

7. Objection 7: The withdrawal of the Musselburgh Active Travel ("MAT") component to the Scheme fundamentally undermines the Scheme design as presented

- i. The MAT element of the design is an integral part of the Scheme and includes 5m wide cycle routes, position of the flood wall, inclusion of Ivanhoe bridge, design of the ramps, etc. The inclusion of MAT has been a key element of how the Scheme has been "sold" to residents. However, shortly before the Scheme was formally notified in March the MAT component was withdrawn (without formal notice or announcement). Since that time, the Council (and the Jacobs project team) have delivered inconsistent advice regarding what the implications of this are, largely claiming it is irrelevant to the Scheme and its design. This is patently false, and is contradicted by the EIA itself which states the "influence" of MAT on the design and ultimately that given the "design inter-dependence" (p.10, Outline Design Statement) between the Scheme and MAT the latter should form part of the EIA. Given that the Council (and the public) have been consulted on a design that fully

incorporates this element, it will be utterly impossible to now approve the Scheme absent the EIA being re-issued and the Scheme re-presented in light of this critical development. We therefore object to the Scheme on the basis that it is impossible to segregate the MAT from the broader Scheme and will need to be reconsidered as a result. It would be procedurally improper for the Council to now seek to approve a Scheme it is impossible for them to apprehend or assess. We further object on procedural grounds to the fact the Council failed to properly notify all stakeholders regarding this critical development and have therefore allowed residents and affected persons to be entirely misled by the intended outcome of the Scheme. Any "support" the Council claims to have received to the proposed plans from the community as part of its consultation process must be rendered void given that many residents felt that MAT was a key part of the Scheme and lent their support to it because of it.

8. Objection 8: Democratic deficit and lack of transparency

- i. The Scheme has proceeded via sham consultations led by the Jacobs design team that have not materially impacted the design of the Scheme, the general public being faced with continual obfuscation and frustration tactics by the Council (such as inconsistent responses to questions, requesting very large sums of money to administer straightforward Freedom of Information requests etc) as well as the Council continually undermining their democratic accountability by delegating queries to the (Jacobs-led) project team. We therefore object to the Scheme on the basis that it does not genuinely reflect the outcome of an engagement with the residents of Musselburgh – to whom the Council serve and must have regard in the exercise of their public duties.
- ii. The number of properties likely to be affected keeps changing without any justification. This is a glaring example of the inaccuracy and confusion within the Council and its consultants. The leaflet delivered to houses affected, such as my own, states categorically on the front cover that the Scheme will protect in the order of 3200 properties. However, the EIA states 2037 residencies and 242 non-residential properties. Such gross differences in documents released at the same time raises questions about the veracity of any statements by the Council and its consultants about the fundamental stated aims and justification for the Scheme.
- iii. The outcomes of consultations that the Council has undertaken have not been made public, such as the Musselburgh Business Partnership. A questionnaire was sent out to c.150 Musselburgh based businesses to "help shape the final scheme and the methods of construction". Where is this evidence? What questions were asked? Why have the public been denied this information? We object to the fundamental lack of transparency there has been with how the Scheme has been managed to date, as it raises important questions regarding the exercise of the Council's statutory authorities.
- iv. The Council has sought to downplay the depth of public opposition to the Scheme, and neutralise genuine democratic opposition whilst simultaneously seeking to present the Scheme as being well received in its own materials. For instance, the Council rejected a petition led by the "Pause the Flood" opposition group which had garnered 2.3k+ signatures (with a further 1k+ "wet ink" signatures collected since).

By contrast, at Public Exhibition No. 1 - 200 people attended. 94% 'supported the flood scheme' . This represents 85 people in a population of 19,000 (0.93% of the population). The summary report also does not reproduce the question that generated this result. We object to the Scheme on the basis that public opinion has been routinely ignored without justification and that Jacobs have sought to present a Scheme to the Council that lacks credibility.

9. Objection 9: Breach of Human Rights

- i. *"People depend on the environment around them for their physical and mental health, and general wellbeing"* (Flood Risk Management (Scotland) Act 2009. The progression of the proposed Scheme will have serious negative implications for us and our [REDACTED] family [REDACTED] given the Scheme will interfere with the right to respect for private and family life (Article 8) of the European Convention on Human Rights and peaceful enjoyment of our possessions (Article 1 of the First Protocol to that Convention). Whilst it is acknowledged that any actual or apprehended infringement of such Convention Rights is usually justified in the public interest and in accordance with a given council's duty to carry out works to reduce the likelihood of flooding of land, given the substantive nature of the objections that make the progression of the Scheme in its current formulation these breaches cannot be ignored and are consequently unjustifiable.

10. Objection 10: Compensation

- i. Compensation must be paid to any person who has sustained damage as a consequence of exercising certain powers under the Act (see section 82). Section 83(1) defines damage as the depreciation of the value of a person's interest in land or the disturbance of a person's enjoyment of land. 'Enjoyment of land' therefore needs to be considered. We object to the fact there is no evidence that the EIA (or the Council) have considered this in any detail.
- ii. Compensation can be justified specifically due to any structural damage to my property as a result of the engineering works for embankment formation and bridge replacement in close proximity [REDACTED] given that the construction of walls will involve the removal of large, mature trees and use of heavy machinery including steelpile-driving equipment, close to houses. Piling works could cause significant vibrations, potentially damaging houses as well as causing disruption. There is no guarantee independent full surveys will be carried out beforehand and we object on that basis.
- iii. Also, we will have reduction in my amenity due to the flood structures proposed, as this amenity was an important factor in my decision to purchase the property and my children's access to the river-side, grass, and beach front [REDACTED] [REDACTED] this is considered an essential amenity that the Scheme will deprive us of). Also, the demolition and construction works in the proposed Scheme will affect my health and wellbeing and that of our family given that EIA notes "potentially significant effects in relation to construction dust emissions (affecting amenity, human health and vegetation) and greenhouse gas emissions affecting global climate." The EIA further identifies potentially effect effects on pedestrian amenity (at 14 locations), fear and intimidation (at 15 locations) and accidents and safety at

15 locations). We are deeply concerned that the Scheme will additionally diminish the value of our property and we expect to be compensated for the sustained damage. Please note that such damage is anticipated in the EIA itself which notes:

"...potentially significant effects are predicted in relation to the impacts on the townscape and views from key viewpoints during construction, and some years during operation, associated with the presence of construction plant and features and the removal of roadside and riverside vegetation, loss of woodland and amenity trees, the loss of vegetative screening in certain locations and the finished works."

Yours sincerely,

[Redacted signature]

22 April 2024

[Redacted contact information]

①



F.A.O Service Manager - Governance, Legal Services
East Lothian Council
John Muir House
Haddington
EH41 3HA.



EAST LOTHIAN COUNCIL
RECEIVED
29 APR 2024
LEGAL & PROCUREMENT

Subject: (0755) CG/11481 Musselburgh Flood Protection Scheme 2024, MUSSELBURGH, FLOOD PROTECTION SCHEME
Sent: 07/05/2024, 15:59:26
From: [REDACTED]
To: Musselburgh Flood Protection Objections
Attachments: [CG 11481 Musselburgh Flood Protection Scheme 2024 - TCA Response.docx](#)

Follow Up Flag: Follow up
Flag Status: Completed

You don't often get email from [REDACTED]. [Learn why this is important](#)
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Dear Carlo Grilli - Service Manager

Following receipt of your consultation on 15 April 2024, please find attached our response.

If you would like to discuss this matter further, please contact the Planning team on the number below.

Regards

The Coal Authority Planning Team

<https://www.gov.uk/coalauthority>



This information has been sent to you from the Planning team, The Coal Authority, 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG. T: [REDACTED] E: planningconsultation@coal.gov.uk W: <https://www.gov.uk/coalauthority>

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Making a better future for people and the environment in mining areas. Like us on [Facebook](#) or follow us on [Twitter](#) and [LinkedIn](#).



[Redacted text]

W: www.gov.uk/coalauthority

Field Code Changed

Field Code Changed

For the attention of: Carlo Grilli - Service Manager
East Lothian Council

[By email: mfpsobjections@eastlothian.gov.uk]

7th May 2024

Dear Carlo

Re: CG/11481 Musselburgh Flood Protection Scheme 2024 - The Scheme comprises flood walls, flood embankments, replacement bridges, reservoir modifications, a debris trap, surface water pumping stations, culverting, repairs to existing structures, erosion protections measured, seepage protection measures, drainage works, landscaping works, road works, accommodation works, and environmental mitigation measures.

Please accept my apologies for the delay in responding. Your notification was not passed to the Planning team until the 25th April 2024. I hope you can consider these comments as a late submission.

The Coal Authority is a non-departmental public body sponsored by the Department for Energy Security and Net Zero. As a statutory consultee, the Coal Authority has a duty to respond to planning applications and development plans in order to protect the public and the environment in mining areas.

Within the area where the Flood Protection Scheme is proposed our records indicate that there are recorded coal mining features present at surface and shallow depth including; mine entries, coal workings and reported surface hazards. These features pose a potential risk to surface stability and public safety.



Making a **better future** for people
and the environment **in mining areas**

In areas where recorded coal mining features are present, this covers the majority of the scheme, consideration should be given to the risks posed by past coal mining activity, especially in cases where built development is proposed as part of the project.

Having read the EIA report, Chapter 11, dated February 2024, I note that this covers contaminated land but does not address land instability and the potential risks posed by recorded coal mining features at surface and shallow depth. This is disappointing due to the significant coal mining legacy present in the East Lothian area.

We recommend that a further assessment, in the form of a Coal Mining Risk Assessment, is carried out for those areas where built development is proposed as part of the Flood Protection Scheme and recorded coal mining features are present. This assessment should identify the risks posed by past coal mining activity and make recommendations for further works, including any investigatory and remedial measures necessary.

The Coal Authority is of the opinion that building over the top of, or in close proximity to, mine entries should be avoided wherever possible, even after they have been capped, in line with our adopted policy:

<https://www.gov.uk/government/publications/building-on-or-within-the-influencing-distance-of-mine-entries>

Field Code Changed

I hope this is helpful but please do not hesitate to contact me should you wish to discuss this further or wish to enter into further dialogue regarding past coal mining features and the risks posed.

Yours sincerely

[Redacted signature block]

Disclaimer

The above consultation response is provided by the Coal Authority as a statutory consultee and is based upon the latest available data and the electronic consultation records held by the Coal Authority since 1 April 2013. The comments made are also based on the information provided to the Coal Authority by the Local Planning Authority and/or information that has been published on the Council's website for consultation purposed in relation to this specific planning application. The views and conclusions contained in this response may be subject to review and amendment by the

Coal Authority if additional or new data/information (such as a revised Coal Mining Risk Assessment) is provided by the Local Planning Authority or the applicant for consultation purposes.



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and the environment **in mining areas**

Subject: (0756) FW: Musselburgh FPS - NatureScot response - 17.5.24
Sent: 20/05/2024, 07:53:16
From: [REDACTED]
To: Musselburgh Flood Protection Objections
Attachments: [Musselburgh flood prevention scheme - NatureScot response - covering letter - 17 May 2024 \(A4560037\).pdf](#)
[Musselburgh flood prevention scheme - NatureScot response - Annexes - 17 May 2024 \(A4546881\).pdf](#)

Importance: High

You don't often get email from [REDACTED] [Learn why this is important](#)
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Good morning

Please see attached NatureScot's response to the Musselburgh FPS. This advice is being provided after the original response date due to a lack of available resource within NatureScot.

Regards

[REDACTED]

NatureScot | Elmwood Campus | Carslogie Road | Cupar | Fife | KY15 4JB
Dualchas Nàdair na h-Alba | Àrainn Elmwood | Rathad Carslogie | Cùbar | Fìobha | KY15 4JB
nature.scot | @nature_scot | Scotland's Nature Agency | Buidheann Nàdair na h-Alba

From: Price, Conor <cprice@eastlothian.gov.uk>
Sent: Friday, May 17, 2024 2:00 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: FW: Musselburgh FPS - NatureScot response - 17.5.24
Importance: High

Dear [REDACTED]

This email is to confirm that I have just received the email and attachments.

This is a formal response to our Scheme Notification and therefore it cannot be received / processed by me in the first instance. May I therefore ask you to send this to the Scheme Objections inbox which is managed by ELC Legal Services who are managing this process. They will then receive and record as a 'late objection' which is the requirement of the process.

Can you please provide a little additional detail in that email of submission about the reasons for it being late – as you reference in your letter. Any pre-discussion is not relevant, but it is my understanding that lack of available staff is a substantial reason.

For clarity the email address is: mfpsobjections@eastlothian.gov.uk

Regards,
Conor Price

Project Manager - Musselburgh Flood Protection Scheme
Structures, Flooding & Street Lighting

East Lothian Council | Road Services | Infrastructure | Partnerships & Community Services
John Muir House | Haddington | East Lothian | EH41 3HA
[REDACTED] | Mob: [REDACTED] | Internal [REDACTED] cprice@eastlothian.gov.uk



From: [redacted]
Sent: Friday, May 17, 2024 1:46 PM
To: Price, Conor <cprice@eastlothian.gov.uk>; [redacted]
Cc: [redacted]
[redacted] response - 17.5.24

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Good afternoon

Please see attached NatureScot's response to the Musselburgh FPS. There are two documents; a covering letter and annexes.

regards

[redacted]

NatureScot | Elmwood Campus | Carslogie Road | Cupar | Fife | KY15 4JB
Dualchas Nàdair na h-Alba | Àrainn Elmwood | Rathad Carslogie | Cùbar | Fìobha | KY15 4JB
[redacted]
nature.scot | @nature_scot | Scotland's Nature Agency | Buidheann Nàdair na h-Alba

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Thoiribh an aire airson adhbharan gnothaich, 's dòcha gun tèid sùil a chumail air puist-dealain a' tighinn a-steach agus a' dol a- mach bho NàdarAlba.

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**We're living through stressful times
right now, and everyone's feeling it.**

Our staff are doing their best to assist local residents
and businesses whilst delivering essential services.

Please, be nice.




East Lothian
Council

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RESPECT US AS WE RESPECT YOU

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NatureScot
NàdarAlba

Scotland's Nature Agency
Buidheann Nàdair na h-Alba

Conor Price
Project Manager - Musselburgh Flood Protection Scheme
Structures, Flooding & Street Lighting
East Lothian Council
John Muir House
Haddington
EH41 3HA

17 May 2024

Our ref: CDM173553

Dear Mr Price

EAST LOTHIAN COUNCIL, MUSSELBURGH FLOOD PROTECTION SCHEME 2024. FLOOD RISK MANAGEMENT (SCOTLAND) ACT 2009 AND THE FLOOD RISK MANAGEMENT (FLOOD PROTECTION SCHEMES, POTENTIALLY VULNERABLE AREAS AND LOCAL PLAN DISTRICTS) (SCOTLAND) REGULATIONS 2010 (AS AMENDED) MUSSELBURGH FLOOD PROTECTION SCHEME 2024, ASSOCIATED DRAFT HABITATS REGULATIONS APPRAISAL REPORT P01.1 AND ENVIRONMENTAL IMPACT ASSESSEMENT

Introduction

Thank you for the opportunity to provide advice and comments on the Musselburgh Flood Prevention Scheme (MFPS), and the associated Habitats Regulation Appraisal (HRA) and Environmental Impact Assessment (EIA). We recognise and support the need for river and coastal flood protection at Musselburgh, and provide our advice here to help progress this very complex scheme as it moves from outline design to the detailed design stage. Our official position reflects the fact that while much work has been done in this regard, the HRA is as yet incomplete, and therefore we cannot be certain there is no adverse effect on the site integrity of European sites.

Due to challenges in coordinating all the necessary specialist advice from within NatureScot, we are submitting this response on an alternative date, as previously discussed and notified in advance with East Lothian Council.

NatureScot, Meadowbank House, 6th Floor South, 153 London Road, Edinburgh, EH8 7AU
Correspondence address: NatureScot, Battleby House, Redgorton, Perth PH1 3EW
NàdarAlba, Taigh Bruach an Àilein, 6mh Làr a Deas, 153 Rathad Lunnainn, Dùn Èideann, EH8 7AU
Seòladh puist: NàdarAlba, Taigh Battleby, Ràth a' Ghoirtein, Peairt, PH1 3EW

 [nature.scot](https://www.nature.scot)

NatureScot is the operating name of Scottish Natural Heritage

SNH position – European Sites – Holding Objection

The proposal could affect internationally important natural heritage interests and we therefore **object to this proposal until further information is obtained**. This is set out in our summary below and in further detail in Annexes 1, 2 and 3. We will be able to give further consideration to this proposal once you have carried out your appraisal of this / these effects

Our advice is that this proposal is likely to have a significant effect on the qualifying features of the Firth of Forth Special Protection Area (SPA) and the Outer Firth of Forth and St Andrews Bay Complex SPA. Consequently, East Lothian Council, as competent authority, is required to finalise their appropriate assessment in view of the sites' conservation objectives for the qualifying feature(s).

In order for this to be determined, we recommend that the following additional information is obtained and provided:

- Results of further summer surveys regarding impacts on SPA qualifying birds.
- Further information regarding survey techniques and the assessment of impacts on the SPA supporting habitats.
- Further information regarding the survey techniques and the assessment of impacts of SPA qualifying bird species.
- Further work to develop effective working methodologies to avoid an adverse effect on the SPA features.
- Further information and additional work regarding all proposed mitigation measures, including details regarding how these measures will effectively avoid or cancel impacts on the European site features.
- Further assessment of the impacts on coastal processes and geomorphology.

If the planning authority intends to grant planning permission against this advice without the requested information, you must notify Scottish Ministers.

Summary of advice

Coastal

This advice complements, and is informed by, the analysis and recommendations in the Dynamic Coast report *Musselburgh Coastal Change Assessment 2024*. We provide further detailed advice for each section of the proposed coastal defences in Annex 3 of the response.

For the main Fisherrow flats, between the harbour and the River Esk, landward retreat of Mean Low Water Springs averaging circa 0.1 metre per year, between 2015 and 2023, is cautiously identified in the Dynamic Coast report. Due to sea-level rise, this erosional rate is very likely to continue and accelerate for many decades, with no reason to expect any increase in sediment supply that might counteract it. We suggest a 'minimum reasonable estimate' of *low-tide* retreat, for this area, is at least c.40% of the current intertidal width by 2100. Given the conservation objective for the Firth of Forth SPA '*maintain... distribution and extent of habitats*', this is a 'likely significant effect' that should have been appraised in the HRA and the EIA. We advise that this loss of habitat should be assessed for potential effect on the qualifying / notified bird species of the SPA / SSSI. Please note, it is only the section between the harbour and the River Esk that we attribute the narrowing to the proposed defences with.

In the same way, there would also be progressive loss of dune habitat and eventually the beach (which supports dune). This loss is another consideration for the SPAs / SSSI, and the assessment of likely impacts on birds.

NatureScot, Meadowbank House, 6th Floor South, 153 London Road, Edinburgh, EH8 7AU
 Correspondence address: NatureScot, Battleby House, Redgorton, Perth PH1 3EW
 NàdarAlba, Taigh Bruach an Àilein, 6mh Làr a Deas, 153 Rathad Lunnainn, Dùn Èideann, EH8 7AU
 Seòladh puist: NàdarAlba, Taigh Battleby, Ràth a' Ghoirtein, Peairt, PH1 3EW

 nature.scot

NatureScot is the operating name of Scottish Natural Heritage

We believe the proposals, between the harbour and the River Esk, do not amount to sustainable coastal management: firstly, we anticipate erosional retreat intercepting the new defences early into their design life, and secondly, by significantly reducing extent of intertidal and coastal habitat, they would in turn reduce the existing nature-based coastal protection. We support the comprehensive and measured recommendations in the Dynamic Coast report.

A particularly important and time sensitive measure is to minimise disturbance of all dune habitat from recreational trampling and other effects. This would enhance the habitat's highly valuable function for coastal defence and resilience.

Marine ornithology

The key issues for marine ornithology impact assessment at the Musselburgh Flood Protection Scheme (FPS) are the potential impacts on several qualifying features of the Firth of Forth SPA and Outer Firth of Forth and St Andrews Bay Complex (OFFSABC) SPA.

The assessments cover the key impact pathways for ornithology receptors (habitat loss, disturbance, changes to water quality, and changes to coastal processes), and covers all relevant stages of the development (construction and operation).

However, there is a lack of sufficient baseline data to inform ornithology assessments both in the EIA and in the HRA. There is a robust ornithological baseline data for the wintering season, when high numbers of wintering qualifying features are present, but to mitigate against significant disturbance during this period, construction works at the seawall is planned to take place during the summer period (April to September).

One single summer season (2019) of tidal count (TTTC) surveys has been provided, (although we understand that another summer survey season is underway). One season of surveys is generally considered insufficient for a project of this scale, as it does not account for inter-annual variation. In addition, this single summer season of surveys is now over five years old and has incomplete spatial coverage, as one of the viewsheds (VP4) was not included. We advise a minimum of two summer seasons of tidal count surveys (April to September, inclusive) is generally required.

Consequently, we cannot determine if no adverse effect on site integrity (AESI) can be concluded for several qualifying features of Firth of Forth SPA and OFFSABC SPA. This includes common scoter, cormorant, eider, herring gull, long-tailed duck, red-breasted merganser, sandwich tern, Slavonian grebe, and velvet scoter.

There is a lack of survey data about potential gull roosts which could be impacted by the construction works. Large number of gulls (herring gull, common gull, black-headed gull) have been recorded during winter months (when compared to SPA cited populations). We also advise that gull wintering roost surveys are required to investigate for the presence of gull roosting sites (e.g. at the river mouth, at the reservoirs) or alternatively that the applicant contacts BTO for any regional data.

The HRA should consider screening-in "changes in water quality" and "changes in coastal processes" for an appropriate assessment (see Annex III 1a and 1b for reasoning). We disagree with the conclusion of no LSE, as the risks of accidental sediment run-off and the long-term impacts of changes in coastal processes should not be deemed negligible. There is a need to assess impacts to benthic habitats upon which certain qualifying features, such as velvet scoter, depend on.

The HRA also mentions some works will still be carried out the shoreline during winter months (the embankment proposed at west of River Esk, repairs at Fisherrow harbour, and the construction of

Goose Green bridge). We recommend that further assessment of the impacts on wintering qualifying features be appraised within the appropriate assessment (AA).

Finally, we would advise that further exploration of the proposed mitigation measures is needed, including how they would prevent significant impacts to qualifying features. These issues are further expanded on within annexes 1, 2 and 3 of our detailed advice. **Terrestrial ornithology**
As the survey work is incomplete, we are not currently in a position to give final advice on the potential impacts of the scheme and therefore we do not provide details on species-specific ornithological impacts.

However, based on the information provided to date, we are concerned that the proposed mitigation is either not sufficient or not detailed enough to reach the robust conclusions that will be necessary. In particular, we would welcome further consideration of how the mitigation proposed for summer working period is feasible, to both progress work and avoid AESI (through significant disturbance).

Additionally, considering the loss of intertidal feeding/roosting habitat, as outlined in our coastal geomorphology advice for this case we are unclear how the current project design will avoid AESI. In particular, the loss of supporting habitat for terrestrial features of the Firth of Forth SPA should be clarified. Annexes 1, 2 and 3 provide further details on these subjects.

EIA - Protected species and habitats

We note the suite of protected species and habitat surveys carried out as part of this proposal. We support the intention to carry out new surveys prior to any construction works commencing. This will help provide an up-to-date assessment of likely impacts.

We welcome the summary of significant effects, mitigation and residual effects, and the Schedule of Environmental Commitments outlined in Chapters 16 and 17. These documents will be useful in enabling further discussion regarding the development of the detailed design of the project, and how the Council secure positive effects for biodiversity.

Freshwater

We note a variety of issues regarding the freshwater environment within the scheme, including potential impacts on freshwater habitats, hydrology and fluvial geomorphology, as well as on sensitive fish species (eel, salmon, and lampreys), and potential barriers to their migration. Annex 5 provides our further advice on these subjects.

Positive Effects for Biodiversity

This scheme has considerable opportunity to deliver a range of positive effects for biodiversity, including enhanced delivery on aspects of nature-based solutions and nature networks. In line with the detailed requirements as set out in the National Planning Framework (NPF4) Policy 3: Biodiversity- measures to restore degraded habitats, deliver nature-based solutions and strengthen nature networks should be set out clearly and secured through the consenting processes.

While matters of biodiversity enhancement will be for East Lothian Council to ensure delivery of, we have in our detailed advice highlighted some relevant issues and opportunities for further consideration, where possible. As the scheme progresses from outline to detailed design, we would welcome further engagement on how positive effects for biodiversity, including but not necessarily limited to, proposals for protection and enhancement of terrestrial, riverine and coastal habitats and species, will be delivered. We are keen to work with the Council and project consultants to ensure appropriate detailed design proposals that meet the aims of the NPF4 policy.

Landscape and Habitat Management

We note that there are proposals to manage non-native invasive species and provide a comprehensive approach to the management of relevant aspects of environmental mitigation and project design. This is welcome and we would advise that the production and delivery of an agreed and landscape and habitat management plan should be secured through appropriate consenting processes.

Conclusion

I hope our advice is helpful. If you have questions about any aspect of this letter or the annexes, then please contact [REDACTED]

Yours sincerely

[REDACTED]

[REDACTED]

cc [REDACTED]

Annex 1

Terrestrial Ornithology

We recognise the significant amount of bird survey work that has been carried out as part of this proposal. We have provided the following comments for further consideration and to inform on-going survey work and completion of the Habitats Regulation Appraisal (HRA).

1. Survey work

- a. We note that through the tide counts (TTTCs) were conducted between Oct 2018-Mar 2020 from View Points (VP)1-3, with VP4 added for surveys from Sept 21-Mar 22, and Sept 22-Mar 23. Lagoons 1 & 2 were surveyed at high tide only from Dec 18 (although Table 5-1 also includes Nov 18). NatureScot guidance is that typically two full years of survey should be conducted, with data to have been collected within the past 5 years; however, if the summer surveys currently underway are conducted appropriately and show similar patterns to the 2019 data then this additional work is likely to be sufficient to inform the assessment for terrestrial species.
- b. We have been unable to find a viewshed map – this is critical to understanding the sufficiency of the VP survey coverage. Fig 5 (HRA Vol 3) shows how the VPs are interpreted, but not what the surveyors could see. VP3 is a particular issue in this regard. We require a map of the viewsheds, and an explanation of what was done to overcome any coverage gaps.
- c. Breeding bird surveys (BBS) were conducted along the River Esk and other locations for potential flood defences between Apr-Jul in 2019 and 2022. These two years covered different areas (Fig 12), and the 2019 surveys (which covered the River Esk) are now 5 years old. In light of this, we welcome the proposal to carry out pre-construction BBS surveys (7.4 of the EIA).

2. Assessment of the EIA and HRA

- a. Zone of Influence (ZOI) - 300m is concluded to be suitable for all SPA species following the assessment in Table 5-5 (section 5.5.2.1.2 of the HRA). While the use of up-to-date literature is welcome in completing this assessment (including our latest guidance; Goodship & Furness 2022), we don't agree with the conclusion that the strategic level suggestion of 300m (Cutts et al. 2013) is necessarily appropriate for all species. While we are content that a 300m ZOI is suitably precautionary for noise disturbance (5.6.2), we are not convinced it is also suitable for visual disturbance. Cutts et al. (2013) sets out 'rules of thumb' and is for initial high-level planning, rather than detailed impact assessment. Most of the available literature evidence is for pedestrian or boat disturbance, and assuming the land-based pedestrian disturbance effects are most relevant to disturbance from this development is questionable. It is also unclear how the ZOI will be used for the development, as in Table 5-9 (AA for the Firth of Forth SPA), one of the mitigation points is '*following the literature in terms of disturbance buffers for SPA qualifying species*' – suggesting a different assessment might be done?
- b. There is a lack of clarity at times across the documents – e.g. the location of the site compounds – Chapter 7 of the EIA 7.6.2.1.4 suggests a compound at Levenhall Links, but this doesn't seem to appear in Table 2-2 of 2.3.5 of the HRA. A map would be helpful to understand these potential site compounds, and therefore their suitability. Additionally, 5.7.4 (HRA) on Working Area Extent talks about limiting sections to 750m – however, elsewhere in the document, e.g. Table 5-9, mitigation is proposed as '*limiting the extent of the working area to 500m*'.

- c. Gladhouse Reservoir SPA – We would welcome further information or an assessment of the proposed change in water levels for the upstream reservoirs, in particular the linked Rosebery Reservoir, and how this will affect the water levels at Gladhouse Reservoir. Water levels at the reservoir are important for the geese which are qualifying features of this SPA.
- d. Musselburgh Active Toun (MAT) - (HRA 3.4.1.5) – parts of this proposal (routes 3 and 5) are included in this HRA. Operational disturbance from this aspect was screened out (Table 3-4) for the Firth of Forth SPA – ‘*Although the aim of the MAT project is to encourage more people to walk/cycle the route along the seawall is already designated a national walking and cycling route (the John Muir Way) and therefore it is considered unlikely that improvements to the route at this location would result in significantly increased disturbance along the seawall.*’ We would welcome more clarity on what ‘*more people*’ would look like, and the results of any work that has been carried out on quantifying changes to usage.
- e. Habitat loss – 5.5.1.2. A total of 4.02ha of SPA habitat is projected to be permanently lost, of which 3.26ha is the intertidal. Table 5-9 suggests no AESI from this – it has 2.92ha of the 4.02ha remaining the same/similar in function as seawall and rock/boulders, while 0.43ha is shingles/cobbles to become rock armour. 0.67ha is intertidal mud/sand at the bottom of the seawall (also to become rock armour) which is not considered important as it is ‘*subject to disturbance from recreational activities*’. The area is small in context of the size of the Firth of Forth SPA, but this relates back to the issues with regards to the viewsheds, and we would like some further clarity on the VP viewsheds (as discussed earlier) to understand how well these areas were surveyed before coming to a conclusion on the impact of habitat loss / deterioration.
- f. Cumulative Impact Assessment – Appendix C. Our understanding is that the Grangemouth Flood Protection Scheme assessment is now largely complete (including its HRA) and should be included here.
- g. Bird Survey Report – Appendix D. 3.2.2.2 details how mean counts were calculated. However, these don’t seem to have taken into account the occasions of missed surveys, as detailed in Table 2-4 so we are not confident that the mean count calculations are correct. Also, the figures from 3.2.3.1 onwards are too low-resolution to read and would be best presented for each species with a consistent scale on the y-axis.

3. Proposed mitigation (please also refer to our Annex 3 advice on mitigation)

- a. Overall, there seems to be different levels of certainty in the delivery of the proposed mitigation as set out in the EIA and HRA. For example, in EIA Chapter 7 Table 7-7, the mitigation items are frequently described with ‘*where possible*’ and ‘*where practicable*’. However, some of this will be critical e.g. use of screening, timing restrictions – which are presented more confidently in the HRA (e.g. Table 5-9) and also relied upon for e.g. Schedule 1 kingfisher in Table 7-8. We advise that these aspects of the proposals should be more consistently communicated and clearly defined, including through the further design stages and the production of detailed information.
- b. No winter working – Table 5-9. This mitigation is suggested numerous times for various species, but this table doesn’t specify what work it applies to. For example, is all the work potentially affecting these species along the seafront, or is it just the seawall, as implied by Figure 8 of Appendix A (and Table 7-7)?
- c. In Figure 8, winter working is scheduled for the new Goosegreen Bridge, as well as work on Fisherrow Links etc. If the latter, then the effects of winter working west of the Esk has not been assessed adequately. Further clarity would be welcomed.

- d. The data to date demonstrate that even if winter working is avoided, some qualifying species of the Firth of Forth SPA are still present on the site in considerable numbers during the summer months and could therefore be subject to disturbance (which could be significant¹, and which is what the HRA concludes). Table 5-9 lists the mitigation for those features affected – much of which is welcome. However, there is insufficient detail on exactly what some aspects would entail. The stopping of works appears to be the main mechanism to avoid impacts (further detailed in 5.7.2, and there described as ‘*significant disturbance*’, which is not defined), but it is difficult to see how this would be workable as it relies on being able to detect significant disturbance effectively before it occurs, and also that stopping active work would remove that effect (given all the equipment etc. would still be in place). Such a system of mitigation would likely become a complicated, potentially resource-intensive approach, and clearly require species-specific protocols, triggers for action, etc.; but this approach also means that if a qualifying species was present in large enough numbers it could stop work for days, or weeks meaning there are increased uncertainties and a risk that work would not be able to progress.
- e. Regarding screening measures, more detail is required on the size proposed, where and how it would be erected, and what it would aim to screen (presumably, workers, machinery and compounds), as we don’t believe it would be possible everywhere, e.g. to screen activities on the seaward side of the seawall.
- f. Section 5.7.2. also says ‘*The need for further mitigation, if identified as required during monitoring surveys and daily ECoW, will be discussed between the ECoW, employer’s ecologist and NatureScot.*’ We advise that this does not provide enough certainty for the competent authority in the context of a HRA – mitigation should be clear enough to allow conclusions to be reached around potential for AESI, and prior to consent. Additionally in 5.7.4, the HRA discusses limiting the extent of seawall working areas to allow birds to use other sections of VP 3 & 4 areas – however it states, ‘*it is likely construction along this area will be limited to 750 m during any one season*’ (see previous comment at 2b). Disturbance effects around a 750m working section would be greater than 750m, so would cover a significant section of the wall, and therefore we advise more information about the respective uses of areas of VPs 3 & 4 for potential redistribution of birds is needed. We would like to see defined working sections which would show how far the disturbance influence of each work section extends, and therefore what habitat is available to SPA roosting birds at each section. This information should also be clear about the alternatives for disturbed birds, and the capacity of the alternatives to support them. Apart from Lagoon 2, we have also not seen a clear description of the key areas for high tide roosts which would help to inform our response to the issue.
- g. The lagoons are extremely important for many Firth of Forth SPA qualifying species, particularly waders as a high tide roost. At the time of the surveys presented here, Lagoon 2 was heavily used, and now that Lagoons 3 and 4 have been restored, it is likely (although not yet demonstrated) that these will also be attractive to SPA birds (Lagoon 3 in particular). Therefore, mitigation for significant disturbance needs to be very certain and clear in this area. A much more detailed description of the natural screening and artificial screening proposed, the location of any compounds and clarity around what would be permitted in the statement in 5.7.4. ‘*...work to the bunds around the Lagoons will be avoided as far as practicable as these form a key natural*

¹ In terms of the Conservation Objective which relates to ‘significant disturbance’.

screen to visual disturbance’ will be needed. The EIA in 7.5.9.1. also states *‘For the purposes of this assessment, it has been assumed that Lagoon 3 and 4 will be utilised by a similar wetland bird assemblage as Lagoons 1 and 2 at the time of construction. This is expected to increase the sensitivity of these ponds to impacts such as disturbance; however, it also has the effect of increasing the available habitat for sensitive bird species that would otherwise have been restricted primarily to Lagoon 2 when present in this area at high tide.’* If the project relies on the extra habitat provided by Lagoons 3 & 4 to provide some mitigation of disturbance at Lagoon 2, then demonstration of its use will be important. Hopefully, this will be clarified to some extent in the summer surveys currently underway. Finally, the additional disturbance from construction has not been considered in combination with other disturbance sources at the lagoons.

- h. Positive effects (Appendix B7.7 EIA) – this document discusses the need for *‘significant biodiversity enhancements’*, but the proposals outlined for birds are minimal and only very outline at this stage. We would encourage East Lothian Council to therefore work towards restoring, enhancing and conserving nature in line with the scale of the project and as per the requirements of policy 3 of NPF4 so that biodiversity is in a demonstrably better state once the project is finished. We would be happy to advise on possible measures that will help deliver these requirements.

4. Coastal geomorphology and impacts on SPA birds

- a. Table 3-4 (Screening Assessment for SPAs and Ramsar Sites) of the HRA concludes that there is no potential for Likely Significant Effects (LSE) during construction or operation from changes in coastal processes. This is in contrast with our coastal geomorphology advice, as set out in Annex 2. In terms of the SPA, there is therefore indeed LSE for the conservation objectives relating to distribution and extent of supporting habitat, and potentially structure and function of supporting habitat, as well as potentially significant increases in disturbance (as the intertidal narrowing would bring low water closer to activities such as dog-walking).
- b. Given the high number of terrestrial SPA birds using the intertidal areas for feeding and roosting, we still have doubts there will be no Adverse Effects on Site Integrity (AESI).

Annex 2

Coastal impacts

Proposals

In this advice, 'tidal flats' describes the low-gradient sandflats with spreads of shingle, plus the typically wet, sloping 'toe' of the beach. 'Beach' includes both the relatively steep slope in shingly sand and the more level, unvegetated sand and/or shingle above.

The scheme elements potentially relevant to coastal geomorphology are as follows, from west to east:

- a. **From the Brunstane Burn to the harbour**, a shingly shore transitions to a sandy beach, backed by sparse low dunes which are heavily impacted and limited by recreation, especially near the harbour. The **existing defences backing the beach would be re-built**: mainly flood walls, but also rock armour just east of the Burn. The exception is two short lengths of new flood wall which would be built into the beach 5m seaward of the existing wall, in front of properties.
- b. **East of the harbour to Links View**, the beach transitions without an eroded edge to low dune habitat, heavily disturbed by recreation near the harbour. **A new flood wall** would be built along the seaward edge of the promenade walkway that backs this habitat. Inland of the walkway, the sand substrate and topography of the links grassland indicates it formed as part of the beach-dune system, by sand-blow.
- c. **Between Links View and the River Esk** the widening tidal flats, more shingly than further west, are dominated by the shifting river channel(s) and one or more broad ridges of shingly sand at right-angles to the shore. The sand beach is often backed by a micro-cliff eroded into the eastward-widening dune habitat, which is heavily shaped by informal paths. Near the river the 'dunes' are slightly higher than the mown links grassland behind. **A new embankment with a flood wall on its seaward side** would be constructed approximately along the boundary between the two.
- d. **East of the River Esk**, the Ash Lagoons shoreline is a sea wall with rock armour at its toe, fronted by sand flats which narrow and become less shingly eastward. **Rock armour and a new flood wall crest would be added** to these hard defences.

The Dynamic Coast report notes that the flood defences have not been designed to resist erosion. It considers what assets are within a nominal 25m-wide erosion zone, should pockets of erosion occur when storm waves undermine the defences. It also underlines the potential role of maintaining beach volumes, for example through beach nourishment, in reducing risks of erosion and flooding. However, the proposal we have been consulted on includes a design life, apparently 100 years, without beach nourishment. Therefore, our advice simply assumes the defences would be maintained and repaired over that period.

We believe that any coastal change effects of the new bridge proposed at Goosegreen would almost certainly be restricted to the immediate vicinity of the river mouth. Other scheme elements along the River Esk and in its catchment could be relevant if they might significantly elevate delivery of sediment to the coast (see below) over a period of years, but this is not likely. Therefore, we don't consider these elements any further in this advice.

Protected area features implicated in this advice

Firth of Forth SPA – birds supported by the tidal flats and potentially by the beach and vegetated coastal habitat.

Firth of Forth SSSI - please note that the inland boundary of the SSSI follows MHWS except where dune habitat has accreted into the site since notification.

Outer Firth of Forth and St Andrews Bay Complex SPA – seabirds potentially supported by the tidal flats.

Coastal landform behaviour

The Dynamic Coast report characterises recent and likely future change to key coastal boundaries. Please see below for additional findings, based on the landform evidence, repeat aerial imagery and historical mapping; enabling us to assess potential effects relevant to the SPA / SSSI.

- In this location waves from both NW and NE directions are common, and similarly the flood and ebb tides run in opposing directions. These effects often result in beach sediment accreting on both outer sides of the harbour, and produce the tidal ridges at right-angles to the shore. It's likely that they also promote long-term relative stability of the *position* of the tidal flats, albeit with significant shorter-term changes after storms and stormy seasons.
- The tidal flats, to a large degree, form the tidal delta of the River Esk, which reflects a long-term relationship between marine action and sediment supply by the river. An apparent reduction in their extent during much of the C20th may relate to elevated sediment supply during the C18th-C19th era of mining and land 'improvement' etc. in the catchment. Sediment supply may well reduce further in coming decades, due to better soil conservation and natural flood management, though the magnitude of change is likely to be minor by comparison.
- The effects of sea level rise over decades will vary according to position within the beach-intertidal system. While Mean High Water Springs (which is the main focus of Dynamic Coast projections) is expected to change due to net erosion, and the lowest intertidal will be progressively be submerged. For reasons of brevity our advice refers to both these mechanisms as landward retreat.

Detailed advice

This advice deals in terms of medium- to long-term trends in net coastal retreat. Shorter-term and often smaller-scale changes that are more 'visible' to local people, including expansion of the beach and/or dune habitat in between storms / stormy seasons / stormy years, are factored in.

1. **For the main Fisherrow flats between the harbour and the River Esk**, landward retreat of Mean Low Water Springs averaging ca.0.1m/y between 2015 and 2023 is cautiously identified in the Dynamic Coast report. Due to sea-level rise, this is very likely to accelerate for many decades, with no reason to expect any increase in sediment supply that might counteract it. I suggest a 'minimum reasonable estimate' of *low-tide* retreat, for this area, is at least ca.40% of the current intertidal width by 2100².
2. Recent landward retreat of the *high-tide* limit along the eastern part of the Fisherrow frontage is quantified in the Dynamic Coast report. The report shows how this erosional retreat will accelerate and, after mid-century, widen to most of the Fisherrow frontage.

² There is considerable uncertainty over how the lower parts of intertidal profiles will respond to sea-level rise in terms of physical process. At Fisherrow, given the apparent macro stability of much of the lower foreshore, my approximate estimate of retreat of MLWS due to sea-level rise uses basic trigonometry (slopes and anticipated relative sea level rise).

Assessing a small but representative sample of topographical transects across the proposal area, recent LiDAR data indicates that tidal flat slope varies between ca.0.15° and 0.35°. Sea-level rise of ca.85cm between now and 2100 (UKCP18 estimates for Edinburgh, for the high-emissions RCP8.5 95% scenario used in the Dynamic Coast project, i.e. an upper estimate) could cause MLWS to retreat landward by ca.240m-500m.

3. Crucially, the net effect of the above two processes on the extent of tidal flats would change when the coast-edge retreat 'meets' the new defences (likely to be before 2040 towards the River Esk mouth, and around mid-century nearer the harbour), as follows.
4. *Before* that time, we can expect the whole beach-intertidal profile to shift landward, with progressive erosional loss of the dune habitat that separates the defences from the beach. The net width of the tidal flats is likely to be maintained. Beach width is also likely to be maintained as it moves inland, though it is difficult to anticipate this with confidence.
5. *After* coastal retreat 'meets' the new defences, i.e. once the dune habitat has been lost, the tidal flats would begin to narrow. The Dynamic Coast projections for MHWS incorporate the assumption that the beach will also be lost to erosion. Accounting for the 'conversion' of beach plus dune habitat (currently 40m-60m width) to upper tidal flats, **the tidal flats would likely narrow by at least ca.35% of the current intertidal width by 2100.** (Should the beach persist to some extent, this would exacerbate the narrowing.)
6. If there were no defences, it's likely that the beach-intertidal profile would continue shifting landward due to the low, erodible topography inland, at least east of Links View. Instead, the 'squeezing' of the tidal flats between the defences and rising sea-level from around the middle of the century can be **attributed to the new defences**³.
7. **Between the Brunstane Burn and the harbour**, much of the above reasoning applies, with the Dynamic Coast report anticipating that retreat of MHWS would 'meet' the new defences by the 2040s. The tidal flats would likely narrow by at least ca.40% of the current intertidal width by 2100. However, if there were no new defences, the existing sea wall, promenade, and buildings etc. would present a considerable (but uncertain) barrier to the beach-intertidal profile shifting landward by erosion. Therefore, **the proportion of the anticipated intertidal narrowing that can be attributed to the new defences is uncertain.**
8. **East of the River Esk** (Ash Lagoons shore), nearly all the tidal flat habitat would be lost due to narrowing by 2100. Because the habitat is already constrained by the sea wall, the only proportion of the anticipated narrowing that can be attributed to the proposed defences is the **seaward footprint of the new rock armour.**
9. As well as these gross changes to intertidal extent, the type and distribution of sub-habitats is likely to change. The clear main effect is that the degree of tidal exposure will be narrower. It is difficult to anticipate changes to surface sediments, but over decades, winnowing out of sand and loss of sediment exchange with the beach may gradually shift the flats towards a 'lag' state with wider spreads of coarser shingle.
10. We note that as the intertidal narrowing would occur from the seaward side, it would make low water closer and the available area of intertidal zone for potentially disturbing recreation, such as dog walking, would be less.
11. Intertidal narrowing is not identified and assessed in the EIA or HRA. The basic way we have analysed it is sufficient only to estimate an approximate scale of change to part of the SPA / SSSI habitat. It falls short of what we would recommend for proportionate assessment of the potential impact in these documents. Any attempt to define necessary compensation for the habitat loss would likewise require more comprehensive analysis.
12. We suggest further consideration should be given to avoiding impacts to the SPA and SSSI through amendments to the current proposal. **We believe it should be possible to address coastal flood risk at Musselburgh while maintaining the protected areas; e.g. through pathway-based adaptation planning that commits**

³ This effect would meet the most up-to-date [formal UK definition](#) of 'coastal squeeze'. However, for the avoidance of doubt, our advice does not depend on the effect meeting a particular definition. We have set out our advice from first principles.

to different measures once coastal retreat ‘meets’ the proposed defence line (as recommended in the Dynamic Coast 2024 report). These issues would need to be subject to strategic HRA and other assessment.

13. The dune habitat helps reduce erosion and to some extent flood risk, through both the volume of dunes and their ability to accrete seaward between periods of erosion. However, this natural defensive function is compromised by the heavy trampling (which particularly limits dune development on the beach west of the harbour). We would highlight as a matter of high importance **that measures are taken to minimise disturbance to all existing and potential dune habitat** seaward of the proposals, to allow natural dune upbuilding and widening. Such measures would likely alter people’s experience of the coast, and therefore we would advise that any such proposals are taken forward with community involvement and support, learning from successes with the West Sands dune ‘restoration’ at St Andrews.

Annex 3

Marine ornithology impacts - Scope of advice

The following qualifying features were considered in the marine ornithology remit of this advice:

Firth of Forth SPA:

Non-breeding common scoter, cormorant, eider, goldeneye, great crested grebe, long tailed duck, red-breasted merganser, red-throated diver, Sandwich tern (in passage), scaup, Slavonian grebe, velvet scoter.

Outer Firth of Forth and St Andrews Bay Complex (OFFSABC) SPA:

Non-breeding: black-headed gull, common gull, common scoter, eider, goldeneye, guillemot, herring gull, kittiwake, little gull, long-tailed duck, razorbill, red-breasted merganser, red-throated diver, shag, Slavonian grebe, velvet scoter.

Breeding: Arctic tern, common tern, gannet, guillemot, herring gull, kittiwake, Manx shearwater, puffin, shag.

EIA advice:

The [EIA](#) identified the following project alone impacts, during construction:

- Firth of Forth SPA
 - **Moderate, adverse** impacts for habitat loss
 - **Major, adverse** impacts for disturbance from noise, vibration, and light
 - **Moderate, adverse** impacts for changes in water quality (sediment run-off)

- OFFSABC SPA
 - No significant impacts for habitat loss *
 - **Moderate, adverse** impacts for disturbance from noise, vibration, and light
 - **Moderate, adverse** impacts for changes in water quality (sediment run-off)

No significant impacts were identified, during the operation phase of the seawall.

Broadly we agree with these conclusions, however **no species-specific assessment** was included as part of the EIA.

The EIA then concludes no significant residual effects from these impact pathways after proposed mitigation measures. We partly agree with this (see section 4).

1. Bird survey methods

We agree with the choice of bird surveys for both summer and wintering marine birds, detailed in [Appendix 7.4 of the EIA](#), which were conducted to inform the assessment:

a) Through the tide counts (TTTC) surveys:

These surveys recorded all estuarine birds in the Forth estuary (shoreline, intertidal and open water up to 2km), across four viewsheds (VP1 to VP 4) and the lagoons. Baseline data was recorded twice a month, from four winter seasons, (2018-2019, 2019-2020, 2021-2022, 2022-2023) and one summer season (2019). Winter season is defined as September to March, and summer season is defined as April to August.

We note the following:

- Data from one viewshed (VP4) was only recorded from two winter seasons (2021-2022 and 2022-2023).
- Only one year of summer data is available for assessment and this is now over five years old.

The available dataset from tidal count surveys provides a robust baseline to evaluate the likely impacts of construction works during the winter season, **but not during the summer season**, as per NatureScot guidance. We advise a minimum of two summer season surveys (April to September), ensuring full spatial coverage of the entire area of coastline works (VP1 to VP4, as it was conducted during winter), to account for inter-annual variation, as well as to better define the distribution of the SPA qualifying features and to provide a robust assessment of potential impacts from this proposal.

b) Breeding bird surveys

Unlike tidal count surveys, breeding bird surveys do not provide robust estimates of the marine bird interests. However, these surveys are still important to ascertain the breeding status of some of the SPA features (e.g. common tern, eider, or herring gull that might breed on the inland area adjacent to the coastline, areas which is not covered by the tidal count

surveys. The methodology used for breeding bird surveys (transects not covering the entire extent of the works and broken into two breeding seasons, one of which is now past the five years mark) is insufficient to enable an assessment of the impacts to birds nesting within the construction area ([EIA, Appendix B7, figure B7.7](#)).

2. Bird survey baseline data (results):

2.1. Impacts on qualifying features during winter period:

In winter, peak counts above 10% of SPA populations were recorded with the tidal count surveys for common gull (OFFSABC), goldeneye (OFFSABC), red-throated diver (Firth of Forth), and Slavonian grebe (both SPAs); and peak counts between 5-10% of the SPA populations were recorded for black-headed gulls (OFFSABC), cormorant (Firth of Forth), eider (Firth of Forth), goldeneye (Firth of Forth), and herring gull (OFFSABC) (see tables 5 and 6, [Appendix 7.4 of EIA](#)).

We agree with the conclusion that **there is potential for environmental impacts on several qualifying features if construction works take place during the winter season** (October to March).

The EIA contains a mitigation measure (E8) to limit construction works at the seawall side to the summer months. We agree that this proposed mitigation will address most of the impacts to wintering features (details in **Mitigation Measures** section below).

2.2. Impacts on qualifying features during summer period:

- There are also qualifying features that use the proposed development site during the summer months (April to September) when construction is proposed. The EIA highlights large numbers of velvet scoter during summer 2019 (peak count 308 birds). Reporting from BirdTrack data (see [strategic migration review report](#), appendix 2) also shows an increase in numbers of velvet scoter in Scottish coastal waters from late June to end September as the birds return to Scotland and decrease from mid-April to late May as they depart for the breeding grounds in spring. The arrival is first evident in North-east Scotland from mid-June and in the Forth. In spring, reporting rates decline at the Forth from mid-March. This further highlights the need for a second season of summer tidal count surveys (April to September, inclusive).

2.3. Inconsistencies in the tidal count bird data (peak counts)

There are inconsistencies in the presentation of the TTTC (tidal counts) data in the EIA (between table 4, 5 and 6 of [Appendix 7.4, EIA](#)). We advise that these issues need to be clarified. For most qualifying features, the numbers of peak counts are consistent between the three tables. However, inconsistencies are found between table 4 and table 5, for the following species: black-headed gull, common gull, eider, guillemot, goldeneye, herring gull, and red-breasted merganser.

3. Cumulative effects

In [chapter 15](#), the EIA includes a cumulative impact assessment for small-scale developments in the region, but it fails to properly appraise the combined effects for large-scale developments, namely the Grangemouth flood defence scheme. The cumulative effects of multiple developments expected in the Forth present an unknown risk to the conservation objectives of both the OFFSABC SPA and the Firth of Forth SPA.

4. Significant effects, mitigation, and residual effects:

At this stage we disagree with the conclusion of no residual significant effects after proposed mitigation ([EIA, chapter 16, table 16-2 to 16-3](#)). The EIA assessment does not differentiate between species, and there is also a lack of detailed reasoning explaining how each mitigation measure ([Chapter 17 of the EIA](#)) would work to reduce adverse significant effects, in reference to the conservation objectives of the SPAs. We advise that further clarity on these matters is necessary.

Overall, it is unclear how some mitigation measures (E8, E9, E15, and E25) would address the environmental adverse impacts. Mitigation E15 and E25 also lack in detail. Again, we would welcome further information and clarification on these issues. Our detailed comments on the mitigation measures for marine ornithological interests are provided below.

Positive effects (Appendix B7.7 EIA) discusses the need for 'significant biodiversity enhancements', but the proposals outlined for birds are minimal and lacking detail. We recognise the potential to address these issues in the next phase of project design and would encourage East Lothian Council therefore to work towards restoring, enhancing and conserving nature in line with the scale of the project and as per the requirements of policy 3 of NPF4, so that biodiversity is in a demonstrably better state once the project is finished. We would be happy to advise on possible measures that will help deliver these requirements.

HRA advice:

In general, the [HRA](#) provides sufficient detail in order to base the assessment and clearly lays out the consideration of LSE and (where appropriate) AESI for each SPA and the qualifying features. The HRA has been undertaken for 14 protected sites, 4 of which are SPAs with seabirds. Two SPAs were screened (Firth of Forth SPA and OFFSAB SPA) and these constitute the focus of our advice.

The HRA identified four impact pathways and investigated any likely significant effects on qualifying features against the SPA conservation objectives; as well as the potential for in combination effects with other plans and projects.

1. Stage one (screening)

a) Construction phase

The screening stage of the HRA identified the following project alone impacts, during construction (see table 3.3, page 3-13, in [HRA volume 1, stage one](#)):

- **Firth of Forth SPA**
 - LSEs concluded from for habitat loss.
 - LSEs concluded from disturbance from noise, vibration, and light.
 - No LSE concluded from changes in water quality (sediment run-off).
 - No LSE concluded from changes in coastal processes.
- **OFFSABC SPA**
 - LSEs concluded from habitat loss.
 - LSEs concluded from disturbance from noise, vibration, and light.
 - No LSE concluded from changes in water quality (sediment run-off).
 - No LSE concluded from changes in coastal processes.

Broadly, we agree with these conclusions, except for **changes in water quality**.

The HRA concluded no LSE. It states that “potential changes in water quality from construction runoff (...) have the potential to have an indirect effect on qualifying interests of the SPA site through causing deterioration of sandy flat habitat, and thus the feeding resource for waders and waterbirds.” We agree with this statement, as this is a concern for some qualifying features recorded in significant numbers in the inner sectors of the tidal count viewsheds, where such impacts could occur (e.g. eider, herring gull, Sandwich tern) **and therefore we conclude LSE**. It is unclear if the proposed mitigation for a 10-meter buffer between construction works and the water line will be applied at the seawall (see section 2.4 of EIA advice).

b) Operation phase:

No LSEs were identified, during **operation** of the seawall, for the two SPAs. We agree with this, except with regards to anticipated changes to **coastal processes**. As set out in our advice elsewhere in this response we consider that in the long term, the flood defence scheme, as proposed, will result in a permanent loss in the extent of the intertidal habitats. Therefore, we advise that LSE should be concluded for the qualifying features of both SPAs which use the intertidal habitats.

c) Other SPAs:

For **Imperial Dock Lock Leith SPA** (located 7km away and designated for breeding common tern), the HRA concluded no LSE on the basis that “individuals from the tern breeding colony at Imperial Dock Lock, Leith, may be disturbed should they forage in the open waters near the Scheme. However, “due to the wide availability of alternative foraging habitats in the Forth Estuary no potential for LSE during construction with regards to disturbance is identified.” We agree with this conclusion.

We also agree with the same reasoning for no LSE for the **Forth Islands SPA** (located 14km away).

d) In-combination effects

A full list of projects and plans assessed is included in the Appendix C: In Combination Assessment (Volume 2, HRA). Five specific projects were deemed to be of particular interest (the Dalgety Bay remediation works, Grangemouth Flood Protection Scheme (FPS), Granton Harbour redevelopment, the Seagreen Alpha and Bravo windfarms, and the Musselburgh Active Toun). From all of these, only one development (Dalgety Bay works) had the potential for in-combination effects, but the habitat loss of 0.09 ha of Firth Forth SPA was considered not important for foraging birds. We agree with this conclusion as the area of lost habitat is negligible compared to the extent of SPA area.

2. Stage two (appropriate assessment)

As there is a lack of summer surveys, we will not provide additional commentary on the appropriate assessment. We agree with the [Terrestrial Ornithology advice](#) regarding the Zone of Influence.

Mitigation measures:

a) Ecological clerk of works and monitoring (mitigation E2)

The HRA proposes to 'following a strictly prescribed Stopping of works should more than 1% of the SPA population at Citation be at risk of disturbance' (see HRA, volume 1, part 2, 5.7.2, page 71). We consider this mitigation as proposed will be **impractical**, as there are many qualifying features known to frequent the area both in winter and in summer, in numbers above 1% of SPA cited population. We are unclear on a practical way forward with this proposed aspect of mitigation considering this fact, but we would advise that further and alternative measures should be sought.

b) Avoidance of winter working (mitigation E8)

The HRA implies that this mitigation measure will reduce the risk of significant disturbance to wintering features. However, as we mentioned earlier, the HRA **fails to consider the impacts to wintering features from some proposed winter works** to the west of River Esk mouth and from Goosegreen bridge construction. In addition, there are also impacts to qualifying features present in summer.

c) Working area extent (mitigation E8)

Restricting works at the seawall at 500-meter sections at any given time will reduce disturbance to a limited spatial extent during the summer period. However, it is unclear how this will ensure that the OFFSABC SPA CO2b is achieved (*distribution of the qualifying features is maintained throughout the side by avoiding significant disturbance*). Some SPA qualifying features were recorded regularly in high numbers in summer in specific areas, such as at the mouth of River Esk. This means these **species seem to prefer foraging and roosting in that specific area** and could therefore be sensitive to disturbance when construction is to take place in that section.

We note that there is a mention that construction works will be restricted to a 750 meters section at any one point (see HRA, vol 1, part 2, 5.7.4, page 72), while previously it was stated that works will be restricted to 500 meter sections. These issues should be clarified.

d) Reduction of noise impacts (mitigation E9)

It is unclear how a 5-10 dB reduction in noise from screening barriers will have any significant impacts on qualifying features present in the vicinity of works, such as in the mudflats to the west of River Esk (VP1 and VP2). Furthermore, we would highlight that the installation of such visual and noise barriers at the seawall. At this stage we query the practical deliverability of such a proposal and how it will best deliver mitigation aims for the qualifying features and where visual and noise disturbance impacts will be most significant from construction works. This also includes the area (VP3) where several qualifying features were recorded in the highest numbers during the summer period.

The proposed soft start to piling, as means of avoiding sudden disturbance, **will not stop significant disturbance to birds in flightless moult**, if present in the vicinity of the works. This is a concern in late summer for common scoter, eider, and velvet scoter (CMA OFFSABC, page 58-68).

e) There is no mitigation proposed for other noisy activities (such as the demolition of the old seawall or the construction of the bridge). We advise that consideration of these aspects of construction should also be considered for mitigation. Buffer between construction works and water line (mitigation E15)

Regarding the creation of a 10m buffer between construction works and the water line to prevent accidental release of sediments, there are no spatial details about the implementation of this buffer (namely if this buffer would be applied also at the seawall side in addition to the riverside). It seems unlikely that this measure would be applicable at the

eastern section of the seawall, where it lies directly adjacent to the shoreline at high tide. Therefore, during construction there could be a risk of sediment run-off to the waters of the Forth and an impact on the qualifying features of the SPAs. Again we would welcome clarification on these matters.

f) Habitat creation (mitigation E25)

One of the measures is to create flatter roosting areas for birds into the rock armour of the seawall. We would recommend that figures are provided for how much new bird roosting habitat is proposed to be created to mitigate against habitat loss, and clarity about the intended target species benefitting from this. As with other aspects of mitigation and biodiversity enhancement we would welcome further discussion on the issues, and the opportunities, such measures could address through the process of detailed design.

References:

Conservation and Management Advice for OFFSABC SPA

<https://apps.snh.gov.uk/sitelink-api/v1/sites/10478/documents/59>

NatureScot Research Report 1280 - Inshore Wintering Waterfowl in Moray Firth Special Protection Area - 2019/20 digital aerial surveys and comparative analyses of aerial and shore-based surveys

<https://www.nature.scot/doc/naturescot-research-report-1280-inshore-wintering-waterfowl-moray-firth-special-protection-area>

Offshore wind - birds on migration in Scottish waters: strategic review

<https://www.gov.scot/publications/strategic-study-collision-risk-birds-migration-further-development-stochastic-collision-risk-modelling-tool-work-package-1-strategic-review-birds-migration-scottish-waters/>

Annex 4

Habitats Regulations Assessment - process advice

Given the HRA is currently in draft, this is our advice on the existing content and approach to the process. We would welcome further discussion on these elements.

Likely Significant Effect / Screening stage

We welcome the Screening for Likely Significant Effect (LSE) text in section 1.2.2.1. This incorporates suitable legal cases as reference points.

We are content with the SACs and SPAs included as part of the assessments.

Terminology

There are frequent uses of 'disturbance' and 'significant disturbance' throughout the LSE and AA stages (e.g. section 4, page 77; section 5.3.2, page 97; section 5.5.2.1.2, page 112). We advise ensuring that precise language is used across the entirety of the HRA, so that when discussing 'significant disturbance' in the context of the relevant conservation objectives (COs) this is clear, and when discussing 'disturbance' more generally this is also clear. This is because the COs explicitly mention 'significant disturbance' thereby allowing some small degree of disturbance to take place without undermining the CO.

We would like to highlight a typo on page 29; Table 2 – 3. There appears to be either a typo or a misplaced comma in the line concerning rock armour. It should either read 125,000, or 12,500.

Impacts from increased public access

There are multiple references to the MFPS not having the purpose of increasing access. However, it appears that active travel and accessibility are issues that have been considered as part of the project. Even if there is no explicit purpose with regards to access / active travel, there may still be impacts on protected areas such as SPAs resulting from decisions that have been or will be made concerning access / active travel elements of the project, even if those elements are not strictly part of the flood defence elements. If the consents received for the MFPS also incorporate e.g. changes to ATN Routes 3 and 5 (page 57) then we advise that impacts resulting from changes in activity and travel should be considered as part of the MFPS within the HRA.

In-combination Assessment (Volume 2, Appendix C)

Please note that this advice regarding 'in-combination' is included at this point to align with HRA process rather than the MFPS documentation.

We believe it is not clear from the titling or the text whether this appendix applies to the LSE stage or the AA stage of the HRA process, or both. For example, the first sentence seems to confuse the two stages, "*whether a plan or project is likely to have a significant effect on a European site includes consideration of other plans or projects which could affect site integrity*". We advise that throughout the document close attention is paid to the language used in both the LSE sections and the AA sections. This will help to ensure that it can be demonstrated that the correct tests are being applied.

We further advise that at the Screening / LSE stage, in order to save unnecessary work, ELC should first consider LSEs on European sites alone, and only then, if necessary, consider LSEs in-combination.

We are satisfied that Grangemouth FPS is sufficiently far advanced for this to be considered for in-combination effects.

Appropriate Assessment stage

We suggest that the title on page 96; section 5.3.1 is changed from “*Habitat Loss / Change*” to “*Habitat Loss / Deterioration*” to more accurately capture what this pathway is concerned with. (“*Deterioration*” is also the word used in Table 5-9 on page 148). This phrasing also appears in Table 5.9, e.g. page 153.

We note that on page 97, section 5.3.2, there seems to be little consideration of significant disturbance by people (e.g. workers); instead, it is focussed on machines. We advise that consideration is given to both.

In reference to page 139, section 5.6, we advise that although an area of habitat may be considered “sub-optimal”, such areas can remain important for qualifying features in circumstances where deterioration is widespread, or where, despite being less than ideal, it serves an important function.

On pages 142-143, there are references to “visual” disturbance. We recommend that there also needs to be a clear recognition of the potential for the **combination** of disturbances, such as audio and visual.

In reference to page 148, Table 5-9, the first CO set out in the table is what is often described as the ‘overarching CO’. This means that usually, where all the other COs are not undermined by a plan or project, this CO will also not be undermined. So, it should not need its own appraisal, and any conclusions attached to it should be the result of the appraisal of the impacts of the project against the other COs.

In table 5, we recommend clarification of the terms, ‘*winter*’, “*be at risk of disturbance*” and “*reinstated*”

Section 5.7 Mitigation

We advise that at present we cannot say whether the suggested mitigation measure clearly and fully mitigate the impacts of the project on the European sites to a point where there is no AESI. Please see further comments below.

Impact assessment caveats

There are caveats in parts of the mitigation sections (5.7.n), where impacts do not seem to have been thoroughly assessed and decisions seem to have been deferred due to this. This is indicated by phrases such as “*where necessary*”, “*as far as practicable*” and “*where practical*”. The HRA process requires clarity on the effects of a project on European sites, as assessed through the AA against the COs of a site, and mitigation put in place to reduce these to a point where the competent authority is certain there will be no AESI. Presently we cannot be certain of the details of the mitigation measures or therefore their effectiveness. The only derogation to this is through the Regulation 49⁴ route.

Construction Environmental Management Plan

On page 155, section 5.7.1, there is a commitment to produce a CEMP prior to construction. We advise that producing such a document so late in the process does not give the competent authority the certainty it needs that the CEMP will help ensure no adverse effects on site integrity (AESI) prior to giving its consent to the project. Even if all details cannot be

⁴ <https://www.legislation.gov.uk/ukxi/1994/2716/regulation/49/made>

understood at this outline design stage, some broad details should be understood and be able to be assessed, and there should be a much firmer commitment to produce a CEMP earlier. This should be of sufficient detail to give the competent authority the high level of confidence required to give consent through the HRA process. This CEMP should then be updated at a later stage to take account of further construction details, wherever needed.

If a bird Species Management Plan is required, then we advise that this is also produced early enough, and in a form that provides the competent authority with sufficient confidence that there will be no AESI. This needs to be concluded prior to consent, rather than prior to construction.

Ecological Clerk of Works and monitoring measures

We welcome the proposed use of experienced ECoWs in this project, however, there needs to be clarity about their role and powers. We recommend further consideration is given to whether the measures included as part of their role are implementable or desirable for the project. For instance, the mitigation measure to stop work immediately should, “1% or more of the SPA population at Citation for any qualifying species” be potentially significantly disturbed could mean the project being delayed multiple times for days or weeks with little warning. Furthermore, how “further mitigation measures” would be put in place through the bird Species Management Plan, which currently does not exist. Finally, we are unclear why the arbitrary figure of 1% of the key species is also considered the trigger for all the species concerned?

We note that monitoring surveys are also referred to, however, if monitoring is being relied on to help with mitigation, that work must be designed with clear triggers for action that identify potential significant disturbance before it occurs in line with the precautionary principle. There should be clear triggers for particular actions, funding secured to ensure it can take place and clear responsibilities agreed between relevant bodies. The role of the ECoW seems intended to help with monitoring and subsequent mitigation measures, but we advise that if this is the desired approach then more detailed work and a higher level of clarity and certainty re. mitigation measures is needed to ensure no AESI prior to consents being issued by the competent authority.

There seems to be an acceptance that further mitigation may be needed and potentially put in place during the construction of the project, “*The need for further mitigation, if identified as required during monitoring surveys and daily ECoW, will be discussed between the ECoW, employer’s ecologist and NatureScot.*” However, this would not be in line with the precautionary principle and the need for the competent authority to ensure no AESI prior to consents being issued⁵. We advise the mitigation is completely identified through the appropriate assessment (AA), and properly secured. This mitigation may be added to or refined in various ways at the later detailed design stage, where precision is not yet possible.

⁵ <https://www.legislation.gov.uk/ukxi/1994/2716/regulation/48/made> Regulation 48(1) and (5).

Annex 5 - Freshwater habitats- Fish and river ecology

Atlantic salmon (*Salmo salar*)

Atlantic salmon are listed on Annexes II and V of the habitats Directive as well as Appendix III of the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention). On 11 December 2023, the [IUCN announced](#) that it had changed its Red List classification for Atlantic salmon in Great Britain from 'Least Concern' to 'Endangered' (Darwall and Noble, 2023).

Atlantic salmon populations continue to deteriorate, and it has been suggested that the species could be [extinct within 20–30 years](#). It is therefore important that the possible adverse effects on Atlantic salmon, both direct and indirect, of proposed development should be assessed and appropriate measures adopted within the project design.

Assessments are undertaken by Scottish Ministers each year according to the requirements of the [Conservation of Salmon \(Scotland\) Regulations 2016](#). Using a grading system, fisheries scientists from the Marine Directorate calculate the probability that the number of eggs required to maintain salmon stocks at sustainable levels has been met in the preceding five years within Scottish rivers. A low grade (Grade 3) indicates that exploitation is unsustainable and management measures are required. Within the Forth District all rivers, with the exception of the River Teith SAC, and the River Forth itself, have been assessed as Grade 3, meaning that these rivers have a <60% of achieving their egg deposition targets. These include the rivers Almond, Avon, Carron (Grangemouth), Devon, Leven (Fife), and Tyne. There is no direct assessment of the status of Atlantic salmon within the River Esk.

The decline in Scottish Atlantic salmon populations, particularly since 2010, led the Scottish Government to publish the Scottish Wild Salmon Strategy in 2022 (Scottish Government, 2022) and the Wild Salmon Strategy Implementation Plan 2023-2028 (Scottish Government, 2023) in February 2023. The Implementation Plan includes measures to improve water quality and quantity for Atlantic salmon, as well as to improve supporting physical habitats and re-establishing connectivity through the removal of barriers to migration. Within the Esk system, there are several barriers which may affect the migration of Atlantic salmon and other diadromous fish species.

There are two National Biodiversity Network (NBN) Atlas records for Atlantic salmon in the River Esk below the A6095 road bridge. There is a paucity of information about the condition of the population and the quantity and quality of Atlantic salmon habitat in the river. In this highly modified river, it is the presence of barriers, rather than the absence of suitable habitat that may reflect the number and distribution of Atlantic salmon.

European eel (*Anguilla anguilla*)

European eel are classified as being 'Critically Endangered' in the IUCN Red List, and Nunn et al. (2023) suggest that this classification also carries over to at a GB and national (Scottish) level. This species is also included in Appendix II of the Convention on Migratory Species (the Bonn Convention) and Appendix II of the Convention of International Trade in Endangered Species (CITES). The European Commission has initiated an Eel Recovery Plan (Council Regulation No1100/2007) to try to return the European eel stock to more sustainable levels of adult abundance and glass eel recruitment. Each Member State is required to establish national Eel Management Plans (EMPs). Scotland has a plan but it last reported in 2010, reflecting the lack of a fishery for this species here (Defra, 2010). However, exploitation of European eels in Scotland is tightly controlled and they are

protected by the Fish Conservation (Prohibition on Fishing for Eels) (Scotland) Regulations 2008.

There are two NBN Atlas records for European eel in the River Esk below the A6095 road bridge. There is a paucity of information about the condition of the population and the quantity and quality of its habitat in the river.

Sea lamprey (*Petromyzon marinus*), river lamprey (*Lampetra fluviatilis*), and brook lamprey (*L. planeri*)

All three lamprey species are listed on Annex II of the Habitats Directive and river lamprey is also included on Annex V. They are also listed in Appendix III of the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention).

There are no NBN Atlas records for these species in the River Esk. Barriers or impediments to migration could explain the absence of the two anadromous species, i.e. sea and river lamprey, or they may never have been present. Note that there are recent records of both sea and river lamprey for the River Teith SAC, which discharges to the Firth of Forth via the River Forth and is designated for all three species of lamprey. In the absence of barriers, other rivers in the Forth District, including the River Esk, might support river or sea lamprey.

Brook lamprey migrate between spawning and nursery habitat but remain in fresh water, i.e. the species' lifecycle does not include an estuarine or marine phase. The species may be present upstream of the weir and the following may therefore be incorrect:

River, brook and sea lamprey may be present within suitable habitat in the River Esk, as identified during the walkover surveys. However, their distribution will likely be limited to the reach downstream of Inveresk Weir due to the weir acting as a barrier to their upstream migration. An individual juvenile lamprey, that could not be identified to species level, was recorded during an electrofishing survey undertaken at a site immediately downstream of Inveresk Weir. (EIA Biodiversity Report, p. 7-36)

Again, brook lamprey might be naturally absent from the river. However, the fish survey conducted in 2019 appears sparse, and the application of the accepted juvenile lamprey electrofishing technique is not mentioned:

Electrofishing surveys were undertaken at four locations on the River Esk in 2019, representative of different habitat conditions and between potential barriers to fish movement within the catchment at New Bridge in Musselburgh, between New Bridge and the weir adjacent to the Mill Lade, and in the upstream reach between the weir and the A1 bridge. These surveys consisted of ten-minute spot checks undertaken within 5m of the right bank (facing downstream) of the river. A further survey was undertaken 2021 on the River Esk at the A1 Road bridge in which a 30m length of river was surveyed. The electrofishing surveys followed SFCC protocols for time-delineated surveys and were undertaken under licence from Marine Scotland. (EIA Biodiversity Report, p. 7-15)

We suggest that unless the appropriate technique was employed, it is likely that any lampreys present would have been missed.

Furthermore, no details about the approach used to assess the presence/absence of fish species are provided. For example, the nature of habitats selected for spot checks. To assess how meaningful the survey was, the width and depth of the river, flow conditions, the use of stop nets, conductivity, and survey effectiveness would be needed. If SFCC protocols were used this information should be made available.

As the surveys were conducted 2019–21, the age of the survey data and the extent of the survey, alongside the data's baseline value is uncertain.

Barriers to fish migration

According to the EIA Biodiversity Report (p. 7-36):

No upstream barriers to migration were observed for salmonids and eels within the study area. Goose Green Weir at the mouth of the River Esk overtops on each high tide and is considered passable to all fish species. Inveresk Wier [sic] was assessed as passable under certain flow conditions but is considered likely to be a barrier to the upstream movement of lamprey under most conditions, due to the steep nature of the structure and strong velocity within the fish pass.

Note that during the site visit the fish ladder on Inveresk Weir appeared to be blocked. Unless barriers or impediments to passage are completely removed, the successful migration of fish will rely upon the presence *and* maintenance of specifically designed structures, e.g. fish passes.



Blocked fish ladder, Inveresk Weir

Improvements to fish passage is mentioned on page 11 of the Stage 4 Outline Design Statement, but there is no detailed description of what might be done. We would recommend further consideration is given to how these improvements can be delivered to deliver a positive effects for biodiversity.

Hydrology, fluvial geomorphology, and river habitat

We note that natural flood management measures have been considered as part of this project, but that their modelled contribution to the scheme is considered to be *de minimis*:

It was concluded that NFM would deliver insufficient reduction in peak design flow to make it an effective alternative to physical defences within Musselburgh. (Stage 4 Outline Design Statement, p. 9)

Changing the river's hydraulic radius, i.e. constraining an already constrained channel, will have implications for freshwater habitats and species. Narrowing the bed of the river and raising the height of flood walls will increase bed shear stress and so the scouring of sediment and vegetation; aquatic habits and the species supported by them may be damaged or lost. During our site visit, several possible temporary flood storage areas were noted downstream of the A1 road bridge.

It is suggested that incorporating these could reduce the scouring effects of flood flows and so help to conserve instream habitats and the species they support. Reconnecting the river with its floodplain could also lead to the development of new habitat and secure positive effects for biodiversity.

Also noted during the site visit were several locations where it is believed a new flood wall would be built between the current channel and the current flood wall. This would leave a strip of made ground and reduce the capacity of the flood channel. It is understood that, in some locations, this approach is intended to protect trees. However, it is suggested that, in places where trees would not be affected, making full use of the available space could lessen the effect of high flows on the channel and the habitats and species supported by it.

Section 2.5.2 (p. 11) of the Stage 4 Outline Design Statement refers to river restoration. We recommend that further consideration is given to detailed design elements in order to secure maximum benefits for biodiversity.

Debris trap

To minimise the throttling and backwater effect of blocked bridge arches, a debris trap upstream of the A1 in Dalkeith Country Park has been proposed. This would catch large pieces of wood and other material. A broad description of its design and maintenance is given in the Stage 4 Outline Design Statement, p. 14:

The debris trap comprises vertical poles, spaced widely across the full width of the watercourse and part of the east riverbank. The foundations will be below riverbed level to minimise impact of riverbed geomorphology. The top of the poles will be below top of riverbank to ensure that if they do become blinded and begin to impound water, the debris trap will safely overtop without resulting in flooding of the adjacent farmland.

Telemetry and CCTV will be provided to enable regular remote observation of water levels and debris. This will enable ELC to maintain the asset and remove debris when necessary.

Although the need to avoid disrupting natural functioning has been considered, the detailed design and maintenance would need to take account of the possibility that the structure could, *inter alia*, become an impediment or barrier to fish migration, trap sediment needed for downstream habitat, e.g. salmon spawning or juvenile lamprey, and destabilize the channel by promoting bank erosion. Hampering or preventing the migration of Atlantic salmon and sea trout runs counter to the legal obligations to maintain passage for these fish to their spawning grounds (as contained within Section 23(3) of the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003. So, it is important to know (i) whether salmon spawning habitat is present above this structure; (ii) whether Atlantic salmon and sea trout currently gain access it; and (iii) whether they have done so historically.

It is possible that this structure could become the victim of the stresses that it is designed to alleviate downstream, i.e. during a flood it could become choked and the lateral loading cause it to fail. It's thought that the use of such a structure would be novel in Scotland. We

suggest that further consideration is given to whether this structure is strictly necessary, and if there are possible alternatives.

References

Defra, 2010: <https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2011/06/eel-management-plan/documents/eel-management-plan/eel-management-plan/govscot%3Adocument/eel-management-plan.pdf>

Forth Rivers Trust: <https://forthriverstrust.org/project/midlothian-esks-barrier-scoping-study/>

Nunn AD, Ainsworth RF, Walton S, Bean CW, Hatton-Ellis TW, Brown A, Evans R, Atterborne A, Ottewell D & Noble RAA (2023). Extinction risks and threats facing the freshwater fishes of Britain. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 33(12), 1460-1476. <https://doi.org/10.1002/aqc.4014>

Scottish Government, 2022:

<https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2022/01/scottish-wild-salmon-strategy/documents/scottish-wild-salmon-strategy/scottish-wild-salmon-strategy/govscot%3Adocument/scottish-wild-salmon-strategy.pdf>

Scottish Government 2023:

<https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2023/02/wild-salmon-strategy-implementation-plan-2023-2028/documents/wild-salmon-strategy-implementation-plan-2023-2028/wild-salmon-strategy-implementation-plan-2023-2028/govscot%3Adocument/wild-salmon-strategy-implementation-plan-2023-2028.pdf>

Annex 6

EIA and further comments

Positive effects for biodiversity (PEfB)

We note the inclusion of a series of proposed positive effects for biodiversity under section E25 in chapter 17. As part of the development of the detailed design of this proposal, we would welcome further discussion with ELC regarding these opportunities and how best the Council can develop them in line with the requirements of NPF4 policy 3.

Protected species and habitats

We note the suite of protected species surveys that have been carried out in relation to this proposal. We would like to highlight the need to avoid or minimise, wherever possible, impacts on protected species and habitats during construction and operation. Such work will help reduce impacts on nature and may help reduce the PEfB measures needed.

We welcome the proposed working methodologies and mitigation as outlined in chapters 16 and 17 of the EIA. To maximise the benefits and outcomes of these elements, we recommend ongoing collaboration with NatureScot as the project is developed through to the detailed design stage.

Species – licencing requirements

We advise that all protected species licencing requirements are agreed prior to any construction work commencing on the site. Please see our standing advice on this matter⁶. We are happy to provide further advise if required.

We welcome the intention to carry out a series of new species surveys prior to any works commencing on the site. This will inform the developer of any changes in species distribution across the site, and the related licencing requirements.

Woodland – Ancient and other

We note the likely impacts on woodland habitats along the River Esk. We advise that disturbance and loss of woodland should be minimised or avoided. Further design refinement of the project should aim to reduce impacts on these habitats and include measures to secure further mitigation and enhancement.

We recommend that appropriate areas for all compensatory plantings are agreed and secured as part of this application. We also recommend the provision of maps showing design, layout and species mix. Alongside this we recommend that a long-term management plan for the woodlands impacted by the project is secured, and this measure forms part of the ongoing development of the project.

Felling of any scrub, hedges or trees is done outwith the bird breeding season (1st March 31st of August).

Firth of Forth SSSI - coastal vegetation

We note that there will be a permanent loss of 0.0008 ha of dune grassland and 0.00003 ha of open dune at Fisherrow. Dargie's 2001 national sand dune survey (to assess the value of this area as part of the Firth of Forth SSSI sand dune feature) states that 'Fisherrow Sands included SD5b and SD5c Lyme-grass mobile dune communities [which are SSSI qualifying habitats]. But at the time of the survey Dargie notes: 'only residual nature conservation feature remaining here, and overall interest is low.' Only the MG7 grassland was noted by

⁶ <https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-standing-advice-and-guidance-documents>

Dargie in 2001 and this is not a qualifying vegetation community for coastal or lowland neutral grassland feature types.

Although we agree that the sand dune area is degraded, and that the permanent losses, as quoted above, will not have a significant impact on the Firth Forth SSSI. We do recommend that it be managed to improve condition and considered as part of the Firth of Forth sand dune feature.

Furthermore, we support the proposed sand dune protection and enhancement measures, including un-intrusive fencing to manage access and enhancement of existing sand dune vegetation. This will help to protect the area from trampling and allow natural recovery.

There is also a need to manage invasive weeds and consider the introduction of species appropriate to the vegetation community, if there are no local sources of seeds. As part of the overall INNS management plan for the site, the control of invasives should include *rosa rugosa*, which is present in the dunes.

Townscape and visual impacts

We note the changes that are proposed within the town, including the changes to landforms, the introduction of walls, bridges and the removal of trees etc. We are generally supportive of the measures contained in the construction phase 9.11.2, - particularly retaining existing trees for as long as possible and keeping the number of trees felled to a minimum, in tandem with advanced planting of offset vegetation.

In terms of TV18 replacement of trees, it would be useful to clarify what is meant by 'large' replacement trees – i.e. Extra Heavy Standard/ Specimen for example. It will be important for the detailed design to look at and identify where these larger specimens will go.

The avoidance of overly engineered slopes (TV24) will also be important, and we advise the approach should seek to promote a naturalistic appearance, avoiding harshly graded embankments, which in turn should help vegetation establishment and allow more successful maintenance. Promoting the use of semi-natural riverbank vegetation and other new planting to soften and integrate the appearance of hard structures, will help minimise visual effects and should also be further explored through detailed design. Creating linear and transitional habitats, by design, will also help deliver Positive Effects for Biodiversity, with nature as an integrated part of the project.

In progressing the detailed proposals, we would highlight the potential benefits from close collaboration with ourselves and other agencies, while also ensuring full community engagement. A design review panel could also usefully input advice to ensure the most appropriate detailed solutions are secured for the main elements of proposed infrastructure.

In summary on this issue, we support the objectives to progress detailed designs, that meet flood alleviation aims, while being reflective of existing landscape/ townscape character, and also ensuring nature positive and appropriate public amenity outcomes. In terms of communication and assessment of detailed proposals, we would support the further use of visualisations, bringing all the proposed mitigation measures together, alongside habitat creation measures (the proposed measures in EIA section 9.11.2 – 9.11.3.1 inclusive). These images could also act as a tool to clearly communicate the proposed detailed measures to members of the community.

Invasive Non-Native Species (INNS)

We strongly recommend the production of a management plan for the treatment of INNS across the development site. This should include clear mapping of the location and species present. (See paragraph above regarding dune habitat).

Long term habitat management

We support the intention to produce a long-term habitat management plan for the project development site. This plan should be comprehensive and fully costed, with the necessary funds and responsibilities secured to ensure that long-term delivery occurs.

From: Musselburgh Flood Protection Objections
Sent: 02 July 2024 15:13
To: [REDACTED]
Subject: FW: Representation on the Musselburgh Flood Defence Scheme
Attachments: Representation on proposed Flood Defence Scheme.docx

Dear [REDACTED],

The email below has been forwarded to the objections inbox by one of the Council Officers (who was copied in). There appears to have been some text missing from the principal email address used. Could you please confirm that it was your intention was to send it to mfpsobjections@eastlothian.gov.uk for consideration in relation to the proposed Musselburgh Flood Protection Scheme?

Kind regards,

East Lothian Council

From: [REDACTED]
Sent: Monday, April 22, 2024 11:01 AM
To: mfpsobjections@eastlothian.gov
Cc: [REDACTED] astubbs@eastlothian.gov.uk
Subject: Representation on the Musselburgh Flood Defence Scheme

You don't often get email from [REDACTED]. [Learn why this is important](#)

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Please find attached a representation on the proposed Musselburgh Flood Defence Scheme from the Musselburgh Conservation Society.

[REDACTED], Musselburgh Conservation Society



Virus-free www.avg.com





c/o [REDACTED]
[REDACTED]
[REDACTED]
Tel: [REDACTED]

22nd April 2024

Representation on proposed Musselburgh Flood Defence Scheme and Environmental Impact Assessment

A special meeting of the Musselburgh Conservation Society's membership was held on April 11th 2024 to consider issues on which the Society would want to make comments. The formal representations set out below have resulted from that consideration.

Overview and general comments

Firstly I set out an overview and some general comments and observations. Naturally the Society has concerns over the scale of what is being proposed. There will be a significant impact on people who live here but also on those who may visit from a wide area to enjoy the town's amenities. Indeed preserving amenity is for us a prime consideration. In this respect some of the wall heights proposed cause us particular anxiety. The council must be satisfied that proposed wall heights are necessary in respect of the safeguarding against flooding that is deemed to be required.

Engineering solutions proposed must be proportionate not only to the identified and calculated risk but to the locational context and in particular the conservation status of some parts of the area which will be visually and physically affected by them. They should be as minimal as they can be and with the upstream potential for natural solutions taken as far as possible. The council must be satisfied that alternative approaches have been fully appraised.

Our membership thought that it would help community understanding if a model of the final scheme could be constructed so that everyone could be given an actual impression of what is involved.

The Schedule of Scheme Operations

1. It would appear that the proposed Goose Green bridge has no flood defence significance and therefore there should be no assumption that it should be included in the scheme. That should be determined by whether it is actually required as part of the Active Toun proposals and so we do not express a view. We are, however,

concerned that it and the associated access arrangements will have a negative impact on views towards the sea from bridges upstream. Apart from this, omitting it if it is deemed unnecessary, would save a significant amount of money. Similarly the replacement Ivanhoe bridge seems to have no flood defence significance but we understand that it is likely to be an essential part of the Active Toun proposals. It is misleading to suggest that either bridge is needed for flood protection, unless we have got this wrong, and that brings into question how they should be funded.

2. According to the plans contained in the EIA report introductory chapter (Document 16) a temporary compound for site works is proposed adjacent to the current Store Bridge on the site of the car park at the end of Shorthope Street. We are concerned about the implications this will have for access to and enjoyment of the wildlife that gathers on and around the cobbled access ramp to the river here and for the wildlife itself. This location is an important, unique feature of the town. Could not this compound be repositioned to a location with less impact?
3. The firehouse building, archer statue, Hayweights clock, information panels and some memorial benches will all have to be relocated to accommodate the scheme. We would welcome early discussion and an input on where all of these features are to be relocated and would want reassurance that the seasonal tree illuminations will continue during construction work and be replaced on any trees that are to be lost.

The EIA Report

1. The appearance of proposed walls is a primary concern for us. The outline design statement (Document 33) says that the walls will have concrete and stone finishes to be determined at the design stage. The Conservation Society would wish to have early discussions with the council on what those finishes should be and on what considerations should be applied to determine that. In particular we are concerned about the likely impact of graffiti which we all know walls in the public domain attract. We want to see finishes that deter offenders and facilitate easy and effective removal where deterrence has failed.
2. We are most concerned about the visual impact of the effective canalisation of the river between the Electric Bridge and the mouth presented by the construction of walls on the edge of the river banks. These will be a major and detrimental change to the appearance of this part of the river and the enjoyment of walking beside it. We think we understand why such canalisation is being proposed but ideally would like to see a more visually acceptable and less stark solution here.
3. We have concerns about the relationship between the proposed defence walls and the listed Roman and Rennie bridges, i.e. how the walls are tied into the bridge abutments to minimise visual incompatibility. The council will need to fully assess this relationship and be satisfied that the appearance of the bridges is not compromised. We are also concerned about the visual impact of a proposed flood defence wall being located in the centre of the wide grassed area beside Mall Avenue

(as depicted on the cover of the March 2024 Project Update that was circulated). This seems a particularly incongruous intrusion splitting the greenspace in two, though we understand that it has been located to save trees on Mall Avenue. It will certainly have a negative impact on iconic views of both the bridges. Is it possible that the wall could be placed closer to Mall Avenue with minimal or no loss of trees by widening the existing shared path alongside Mall Avenue rather than replacing it? Apart from being aesthetically damaging at the bridge abutment we also wonder about the implications for the passage of flood water of any defence wall effectively cutting off the easternmost and dry arch of the Rennie bridge. We assume that Rennie's design built in this arch partly for the purpose of accommodating flood water.

4. We have noted that the Active Travel routes incorporated into the scheme are in general five metres wide adding a lot of hard landscape at the expense of greenspace and potentially adding significantly to the run off at flood events. We accept that this width will aid safety on shared paths but wonder, in order to minimise visual impact, if some existing paths could be widened rather than new alignments provided. We have already referred to Mall Avenue. Another example is Eskside East between the Rennie and Store bridges. As regards the Active Travel proposals they are proving to be controversial. We understand that those associated with the Flood Defence Scheme will not be subject to the normal planning procedures and this is a real concern to many of our members and no doubt to others in the town who want a greater say in the concept, the need and the design. We would like this anomaly resolved so that people don't feel that elements of the Active Travel proposals will be delivered without full consultation.
5. It is regrettable that the tree survey report which was completed in 2022 before there was a detailed design for the scheme has not been updated, so there is no analysis of the effects of tree removal that will actually take place. This has to be addressed. Also on the subject of trees we call for any trees to be lost to be replaced in appropriate locations by mature trees, not seedlings.
6. We have also note that there are places where modelling of the detailed changes in flooding that the scheme will produce has not yet been done. Presumably this is being addressed.

[REDACTED]

[REDACTED] Musselburgh Conservation Society

