FINAL

BASELINE RBMP ASSESSMENT

Kintore Flood Study

Project no. 4021839

Prepared for:

Aberdeenshire Council

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cbec eco engineering

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1. Introduction

1.1 Scope of Commission

RSK / cbec Eco-Engineering have been commissioned by Aberdeenshire Council to carry out a Flood Protection Study in Kintore. The following document outlines the baseline RBMP assessment on the local watercourses.

1.2 Study Location

Figure 1-1 shows the study location, within which the RBMP assessment has been made.

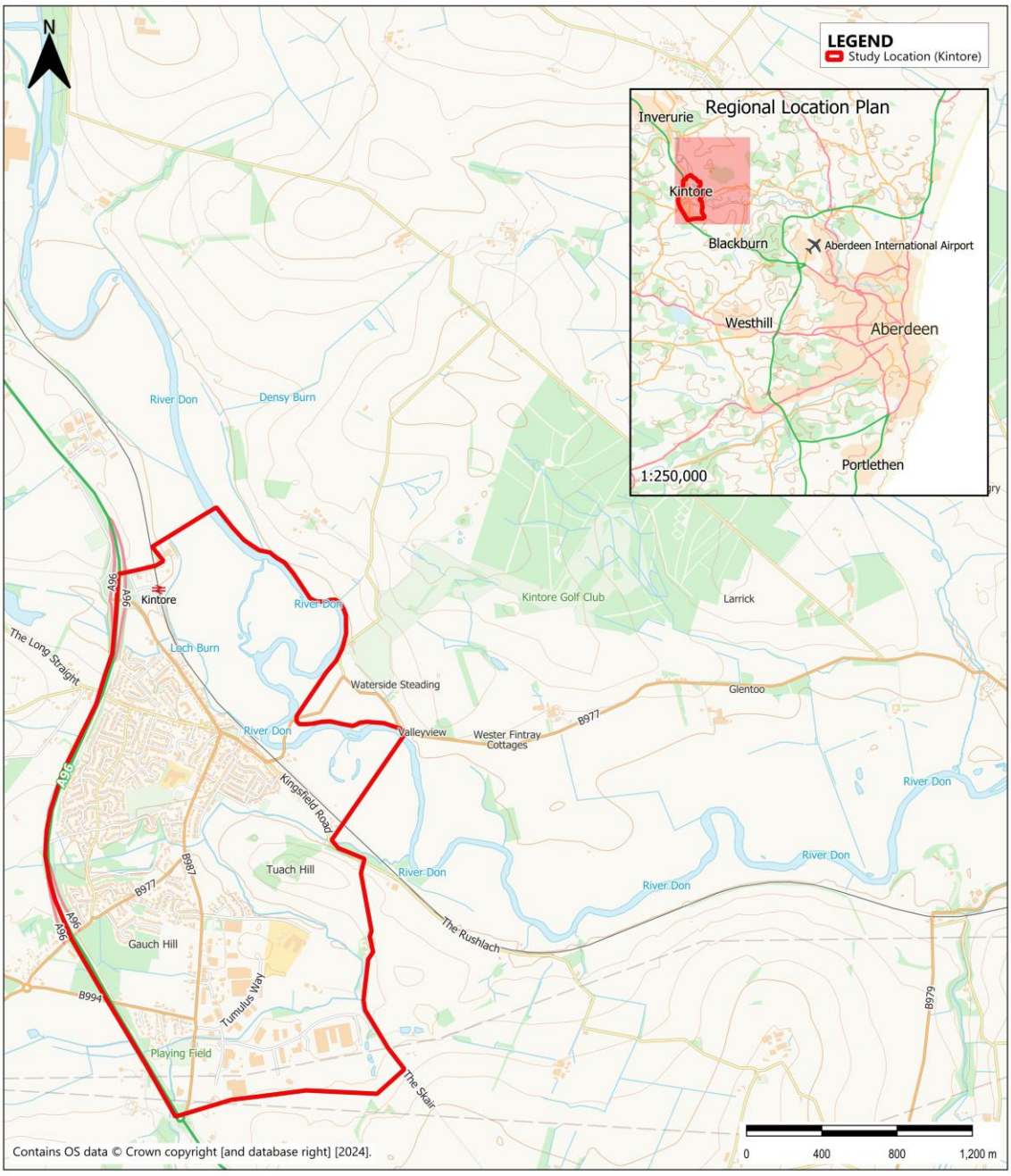

Figure 1-1 - Location Plan

1.3 Report Structure

This report outlines the steps taken to understand the River Basin Management Plan (RBMP) status of the watercourses in Kintore. The RBMP is the implementation of the EU Water Framework Directive (WFD) into Scottish legislation. The aim of understanding the baseline RBMP status of the watercourses is to enable the identification of pressures on the water bodies which can then be used to identify options which target improvements in RBMP status – improving overall river health in the long term. Therefore, the report outlines:

- A desk-based assessment to understand where pressures exist (described in Section 2.1);
- A field-based assessment to gather further detail on pressures and consider where options could be implemented (described in Section 2.2); and
- Identification of potential options to improve RBMP status by combining the information gathered in the desk and field-based assessments (described in Section 2.3).

2. Physical condition, opportunities and constraints

2.1 Desk-Based Assessment

Existing information/data was collated and reviewed for the three study reaches to gain a contextual understanding of site conditions and current RBMP classifications, assessments and targets. The sources of information included: satellite imagery[1] and LiDAR[2] to understand the valley topography, channel character and land/river use; RBMP classification[3] and pressures data[4] to review the existing knowledge and RBMP objectives; and additional high-level data sets that indicate river channel recovery potential[5], anthropogenic modification[6], riparian planting prioritisation[7,8], opportunity areas for flood storage[9] and flood risk areas[10].

The River Don at Kintore flows south, skirting the eastern boundary of the town. The valley here in unconfined and the channel is sinuous. Satellite imagery and LiDAR show evidence of meandering processes, in palaeochannels, scroll bars and ox-bow lakes. Information regarding the existing pressures, opportunities for improvement and flood risk benefit and potential constraints that were highlighted in the desk-based assessment are summarised below.

- **Land use** of the surrounding floodplain is predominantly high-value agricultural land.
- **The WFD** classification for the River Don at Kintore (23269 River Don - Inverurie to Dyce) is 'good ecological potential', and the river has been designated a heavily

[1] Bing Map (2022). Satellite imagery, Aberdeenshire [Online via https://www.bing.com/maps/]. Accessed September 2024.
[2] Scottish Government et al (2012). LiDAR for Scotland Phase 1 – DTM [Online via https://remotesensingdata.gov.scot/data#/list]. Accessed September 2024.
[3] Scottish Environmental Protection Agency (2023) Water classification Hub [Online via https://www.sepa.org.uk/data-visualisation/water-classification-hub/]. Accessed September 2024.
[4] Scottish Environment Protection Agency (2016). Morphological Pressures Data.
[5] Scottish Environment Protection Agency (2023) River Recovery Potential. [Online via https://map.environment.gov.scot/sewebmap/?layers=riverRecoveryPotential]. Accessed October 2024.
[6] Scottish Environment Protection Agency (2024) River Anthropogenic Modification Index [Online via https://map.environment.gov.scot/sewebmap/?layers=riverAnthroModIndex]. Accessed September 2024.
[7] Marine Directorate (2020) SRTMN - Nationally scaled tree planting prioritisation where trees are planted on both banks [Online via https://marinescotland.atkinsgeospatial.com/nmpi/default.aspx?layers=1901]. After Jackson et al (2018) and Jackson et al (2021). Accessed October 2024.
[8] Scottish Environment Protection Agency (2023) Recommended Riparian Corridor [online via https://map.environment.gov.scot/sewebmap/?layers=recommendedRiparianCorridor]. Accessed September 2024.
[9] Scottish Environmental Protection Agency. 2023. Flood Risk Management Maps. Natural Flood Management – Opportunity areas: Floodplain storage [Online via https://map.sepa.org.uk/floodmap/map.htm]. Accessed September 2024.
[10] Scottish Environmental Protection Agency. 2023. Flood Risk Management Maps. River Depth – Medium Likelihood [Online via https://map.sepa.org.uk/floodmap/map.htm]. Accessed September 2024.

modified water body. 'Good ecological potential' is the overall classification because the morphological pressures that impact the river cannot be remediated without significant impact to the drainage of the surrounding agricultural land.

- **Flood hazard maps** show extensive inundation of the floodplain, posing a risk to the nearby railway and outskirts of Kintore town. The River Don floodplain is highlighted as an opportunity area for floodplain storage; however. the prevalence of high-value agricultural land puts constraints on floodplain reconnection and channel restoration opportunities.

- **Morphological pressures data** show extensive channel modifications to the River Don along the study area[4]. Pressures include: embankments, high-impact realignment, bank protection and bridges. Further to this dataset, poaching pressures are visible from satellite imagery[1].

- **Riparian tree cover** is sparse along the study reach. The recommended riparian corridor is approximately 30m wide, extending from each bank[8].

- **Infrastructure** impacts the floodplain along the study reach, including: a railway that runs broadly parallel to the channel on river right and dissects the floodplain; and waste water treatment works that are located close to the river right bank towards the upstream extent of the study area. The presence of sewage works close to the channel indicates the potential for buried sewer pipes to interact with the river channel and/or floodplain area.

The Tuach Burn at Kintore flows to the east of the town through sections of unconfined and partially confined valley settings within the study reach. The Tuach Burn channel is approximately 3m wide and predominantly straight. The key findings that pertain to existing pressures, opportunities for improvement and flood risk benefit and potential constraints are as follows.

- **Land use** along the Tuach Burn study area is industrial towards the upstream extent, but predominantly agricultural/parkland for the remainer of the study area. There are sections where the channel flows close to the boundary of residential areas and the Midmill School.

- **The WFD** classification for the Tuach burn (23272 Tuach/Tillakae Burn) is 'Moderate ecological potential' and it is designated as a heavily modified water body owing to physical modification that cannot be remediated without a significant impact on the drainage of agricultural land. The key pressures are morphological alterations, (impacting physical condition) and rural diffuse pollution (impacting water quality).

- **Flood hazard maps** show the existing risk to Craigearn Business Park and Kingsfield Road. Although potential was highlighted in the opportunity areas for floodplain storage map[9], buildings and agricultural land limit space for delivery of significant flood storage benefits.

- **Morphological pressures data** show that the Tuach Burn has been modified along the length of the channel in the study area. High-impact realignment is recorded along the majority of the reach, with short sections of low-impact realignment where the channel has recovered sinuosity to a degree. Other morphological pressures include bridges, bank protection, culverts and embankments.

- **Riparian tree cover** is discontinuous and limited to only the immediate channel margins. The recommended riparian corridor is approximately 15m wide, extending from each bank[8].

- **Infrastructure** that is likely to pose a constraint to physical improvements includes: roads, bridge/culvert crossings supporting roads, embankment flood defences and a sustainable urban drainage scheme (SuDS) area.

The Torry Burn flows through the study area close to Torryburn Wood. This small watercourse is a tributary of the Tuach Burn that drains from the west of Kintore, through a straight channel to its confluence with the Tuach Burn. The Torry Burn is not classified under the WFD as it is a small watercourse; therefore, there no existing classification or pressures data are available. Satellite imagery shows that the floodplain is a mixture of parkland and woodland, and the historically straightened channel has continuous riparian tree cover close to the bank margins[1]. Flood risk to the study site is shown on the flood hazard maps[10] and this area is highlighted as an opportunity area for flood storage[9]. This reach falls within the area of the Local Nature Conservation Panel (LNCS), therefore consultation would be essential in relation to proposed works for this site.

The findings from the desk-based assessment inform the initial identification of opportunities for remediating pressures and reconnecting the floodplain; these are interrogated further in the field-based assessment and feed into the development of potential options.

2.2 Field-Based Assessment

A reconnaissance-level walkover of the Kintore study area was undertaken on Wednesday 16th and Thursday 17th October 2024. River levels were high after heavy rain (based on site observations); weather conditions saw rain on both survey days. Access to and visibility of the Tuach Burn and River Don were generally good. Sections of dense vegetation hindered continuous access and sight of the river channel; therefore, spot checks of the channel were only possible along these sections where access and visibility could be achieved safely. Similarly, access to the Torry Burn was hindered due to dense vegetation and areas of inundated floodplain. Furthermore, ~100 m of channel near the middle of the study area was inaccessible due to the proximity to residential properties on both banks. Spot checks were carried out along the reach at Torryburn Wood where access and visibility could be achieved safely, and continuous observation was possible between the School Road bridge and the confluence with the Tuach Burn.

The method for the reconnaissance-level walkover comprised walking the length of each study area and recording the general character of the river and floodplain, morphological pressures, opportunities for floodplain reconnection and improvement to physical condition and associated constraints. Multiple benefits were also considered in the analysis of the collected data and benefits-constraints analysis informed the development of shortlisted option reaches, which are prioritised into High, Moderate, Low or No opportunity reaches (see Section 2.3 below).

2.3 Identification of Potential Options for RBMP Status Improvement

The priority levels assigned to the reaches are based on the degree to which benefits to floodplain reconnection and/or physical condition can be achieved when balanced against the existing constraints. The criteria used for prioritising reaches are detailed in Table 2.1.

Summary maps providing an overview of the results for each study area are shown on Figure 2.1 and Figure 2.4, with site-specific details shown on Figure 2.2 and Figure 2.3, then on Figure 2.5 to Figure 2.7.

Table 2-2 and Table 2-3shows the potential options within the Kintore study area to improve RBMP status, taking into consideration the geomorphic characteristics and pressures as well as the constraints which are prevalent.

Table 2-1 Definitions of priority levels for Option Reaches

Priority Level	Definition
High	Significant benefit to geomorphology, ecology, flood risk and/or amenity value Proposed works highly feasible and appropriate given site conditions Limited effects of constraints on proposed works
Moderate	Notable benefit to geomorphology, ecology, flood risk and/or amenity value Proposed works generally feasible and appropriate given site conditions Constraints present but can be mitigated easily
Low	Limited but non-negligible benefit to geomorphology, ecology, flood risk and/or amenity value Feasibility of proposed works not known but options considered appropriate given site conditions Constraints present and could be overcome with additional work
No opportunity	Negligible or no benefit geomorphology, ecology, flood risk and/or amenity value Limited feasibility for proposed works given site conditions Constraints present that could not be overcome without disproportionate additional work

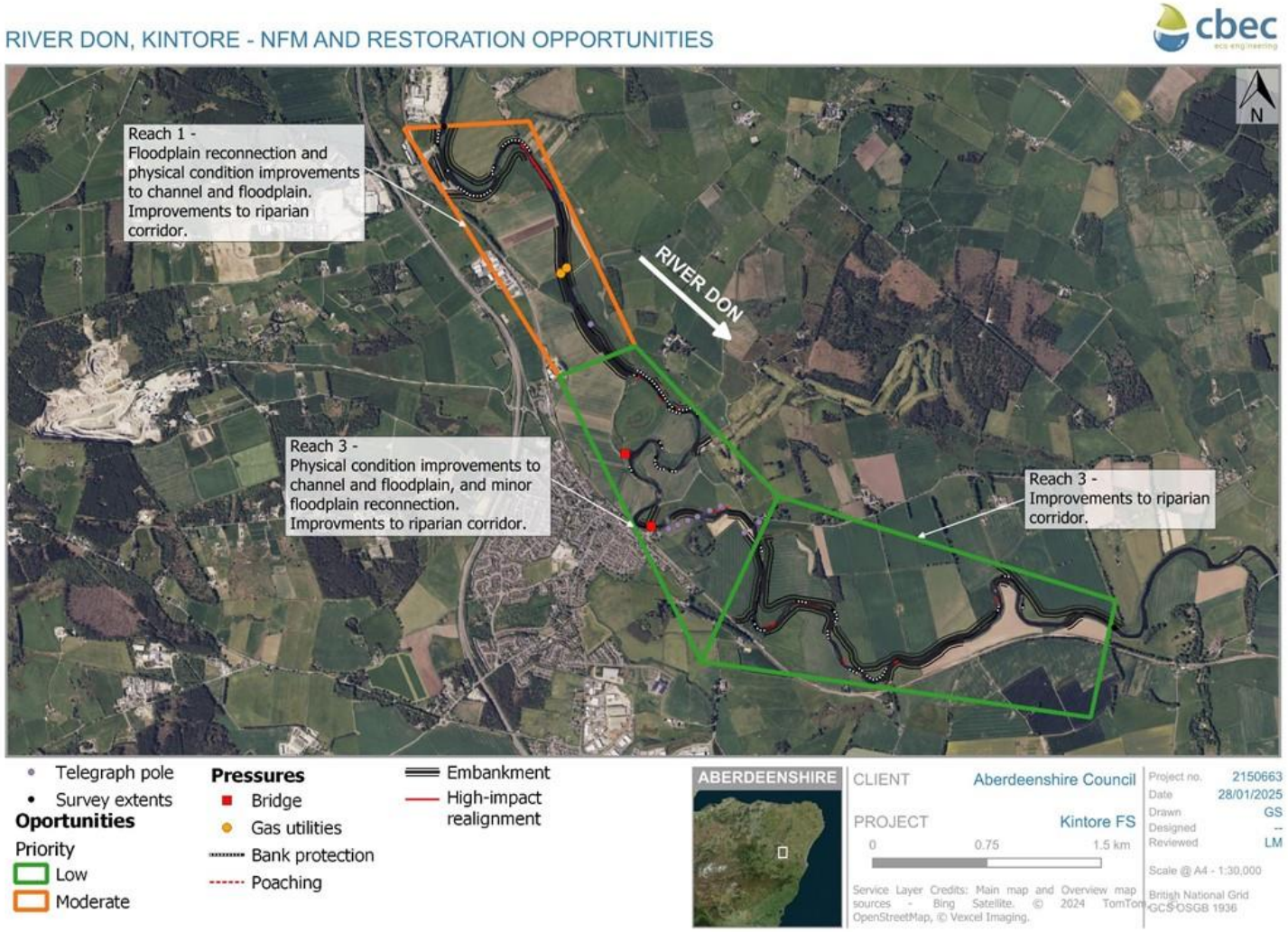

Figure 2-1 - Overview of pressures and potential options to improve RBMP status: River Don, Kintore.

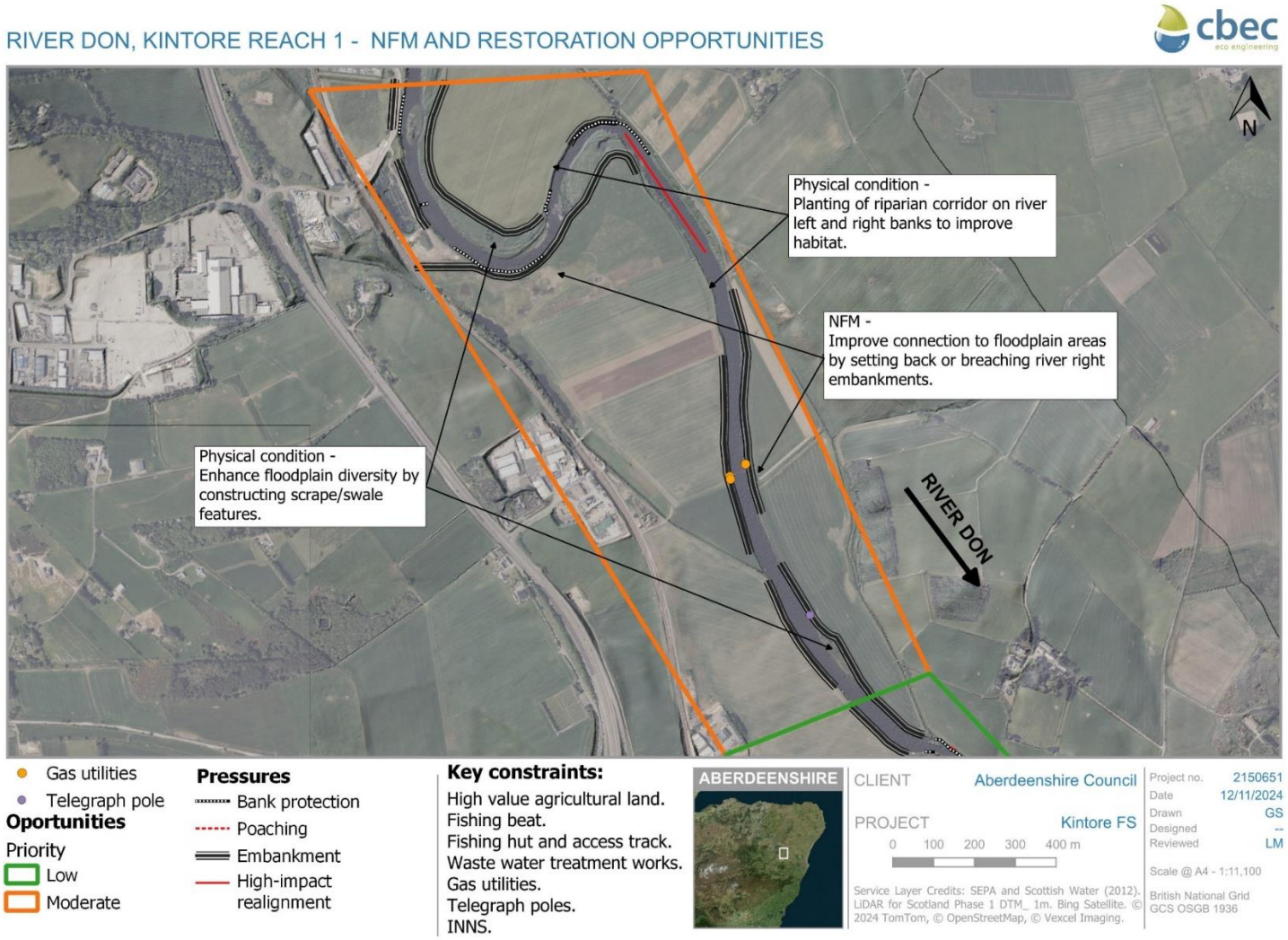

Figure 2-2 - Opportunities, pressures and constraints along reach 1: River Don, Kintore.

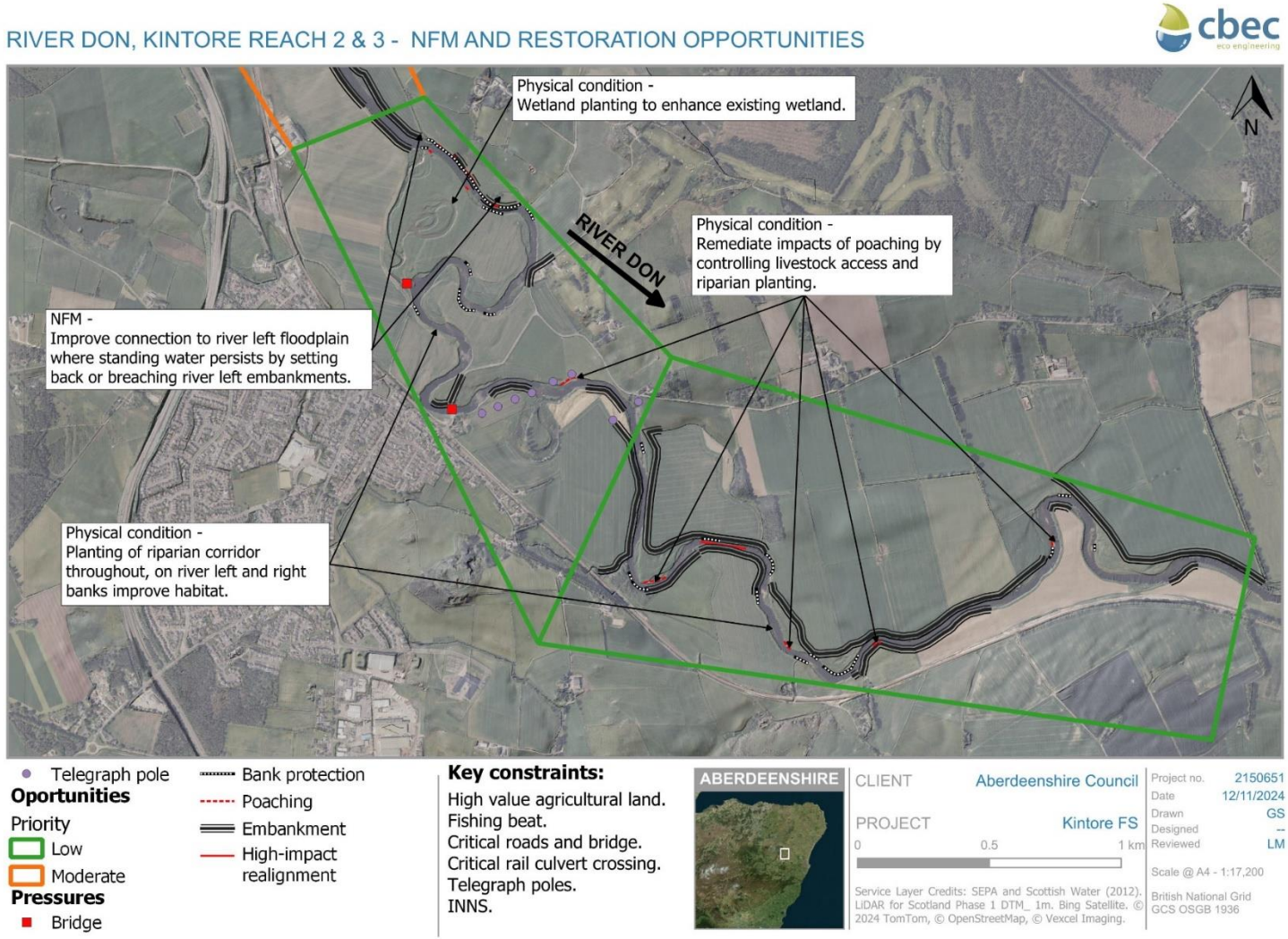

Figure 2-3 - Opportunities, pressures and constraints along reaches 2 and 3: River Don, Kintore.

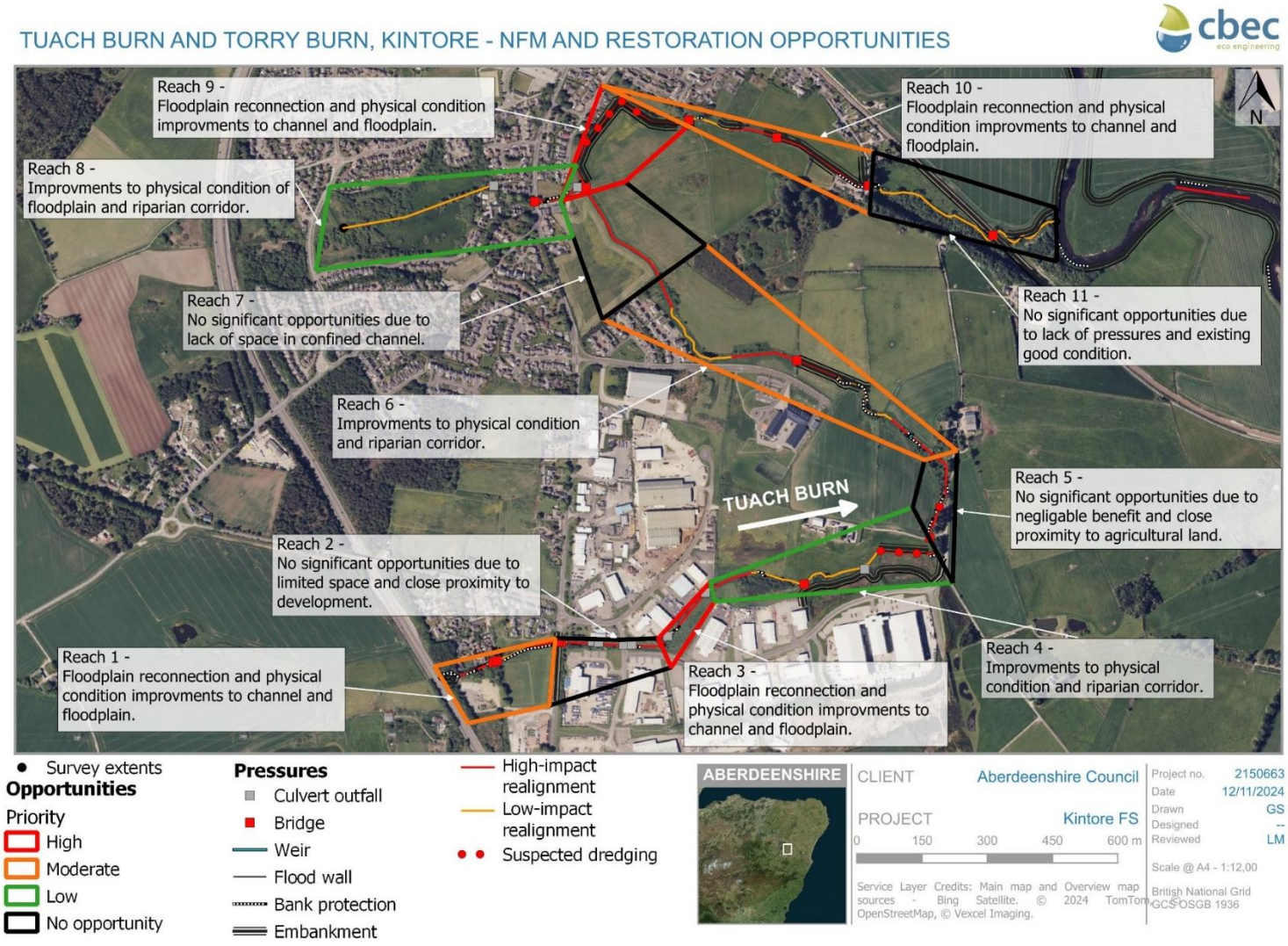

Figure 2-4 - Overview of pressures and potential options to improve RBMP status: Tuach Burn and Torry Burn, Kintore.

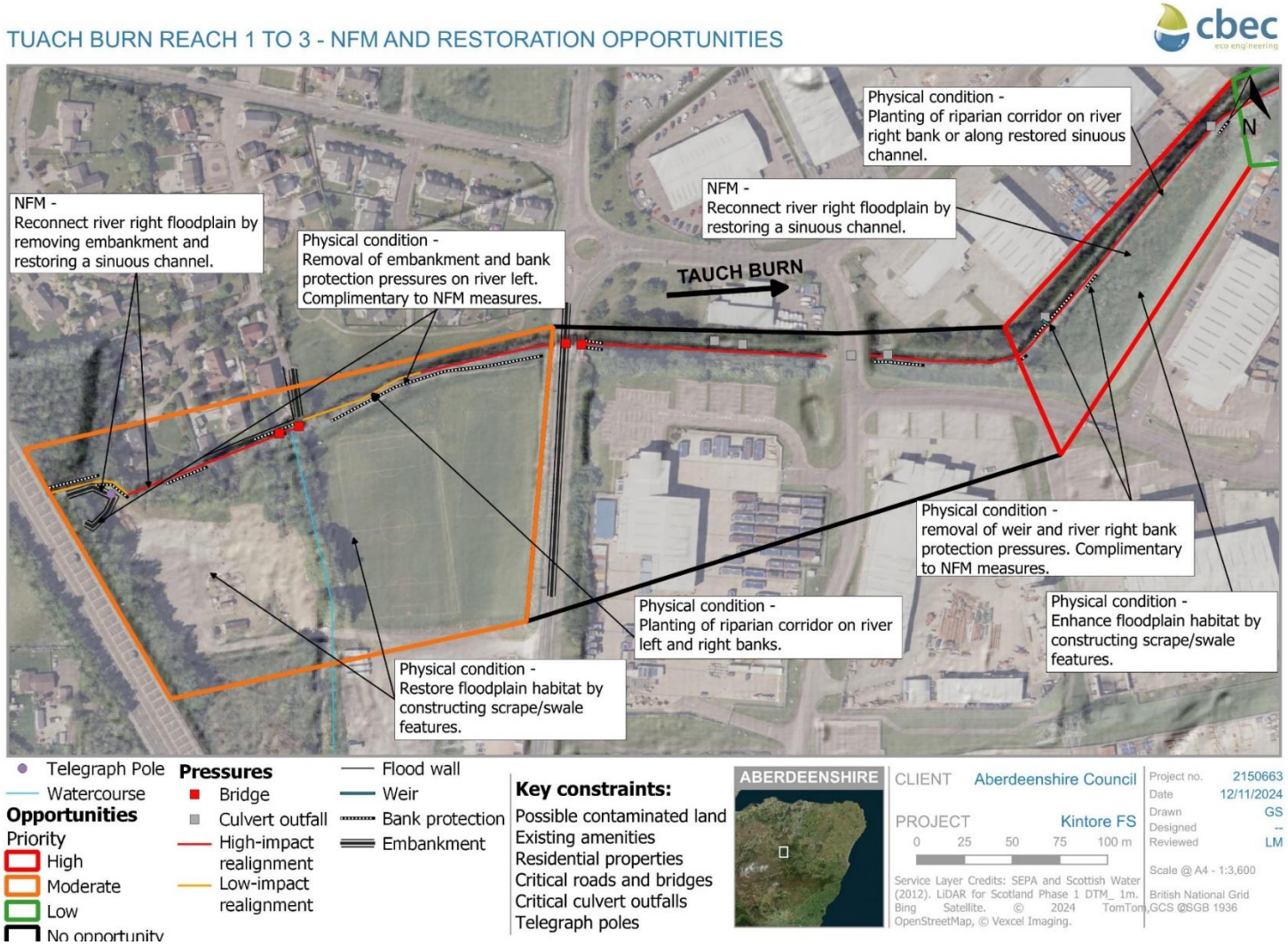

Figure 2-5 - Opportunities, pressures and constraints along reaches 1 to 3: Tuach Burn, Kintore.

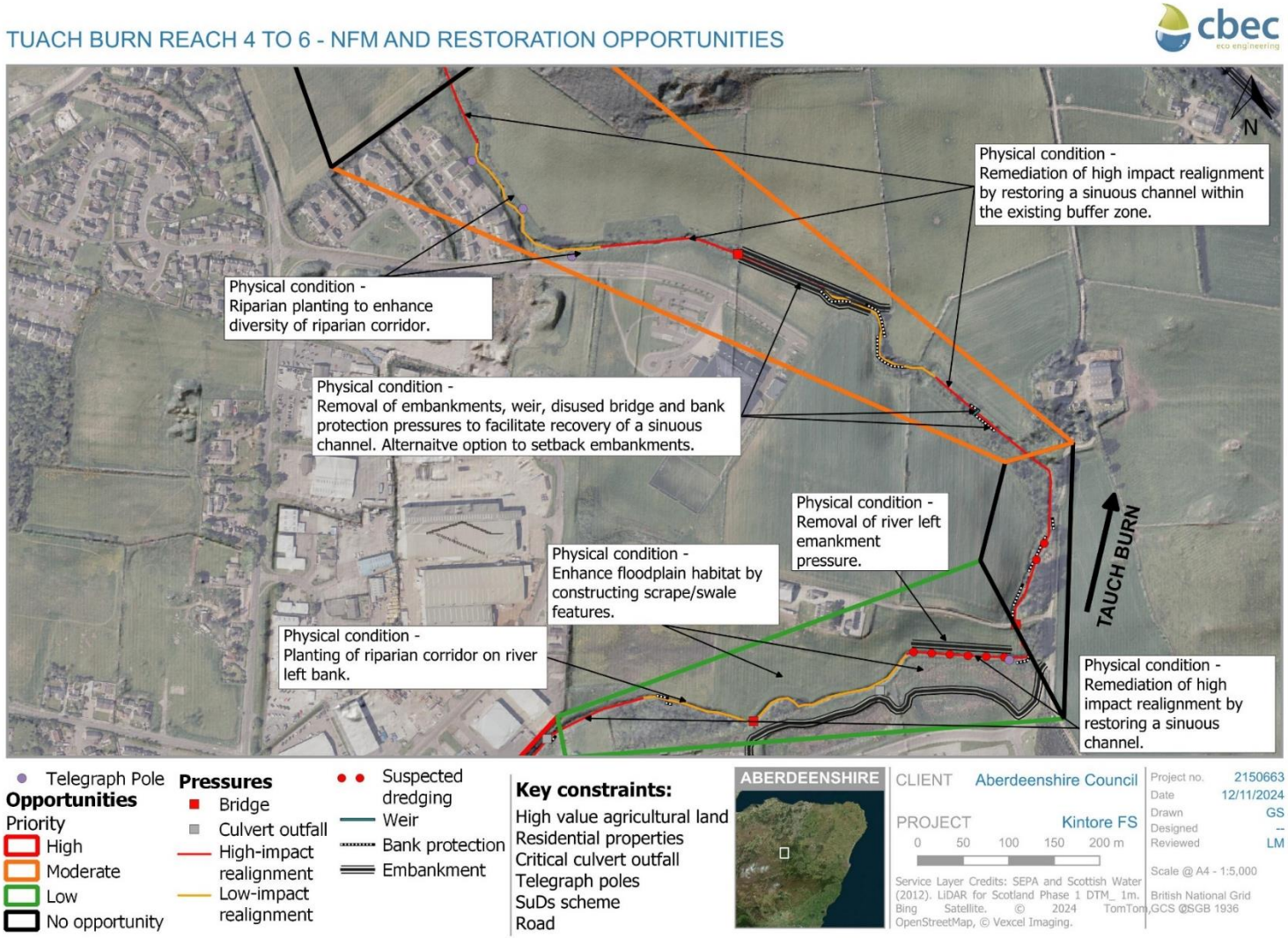

Figure 2-6 - Opportunities, pressures and constraints along reaches 4 to 6: Tuach Burn, Kintore.

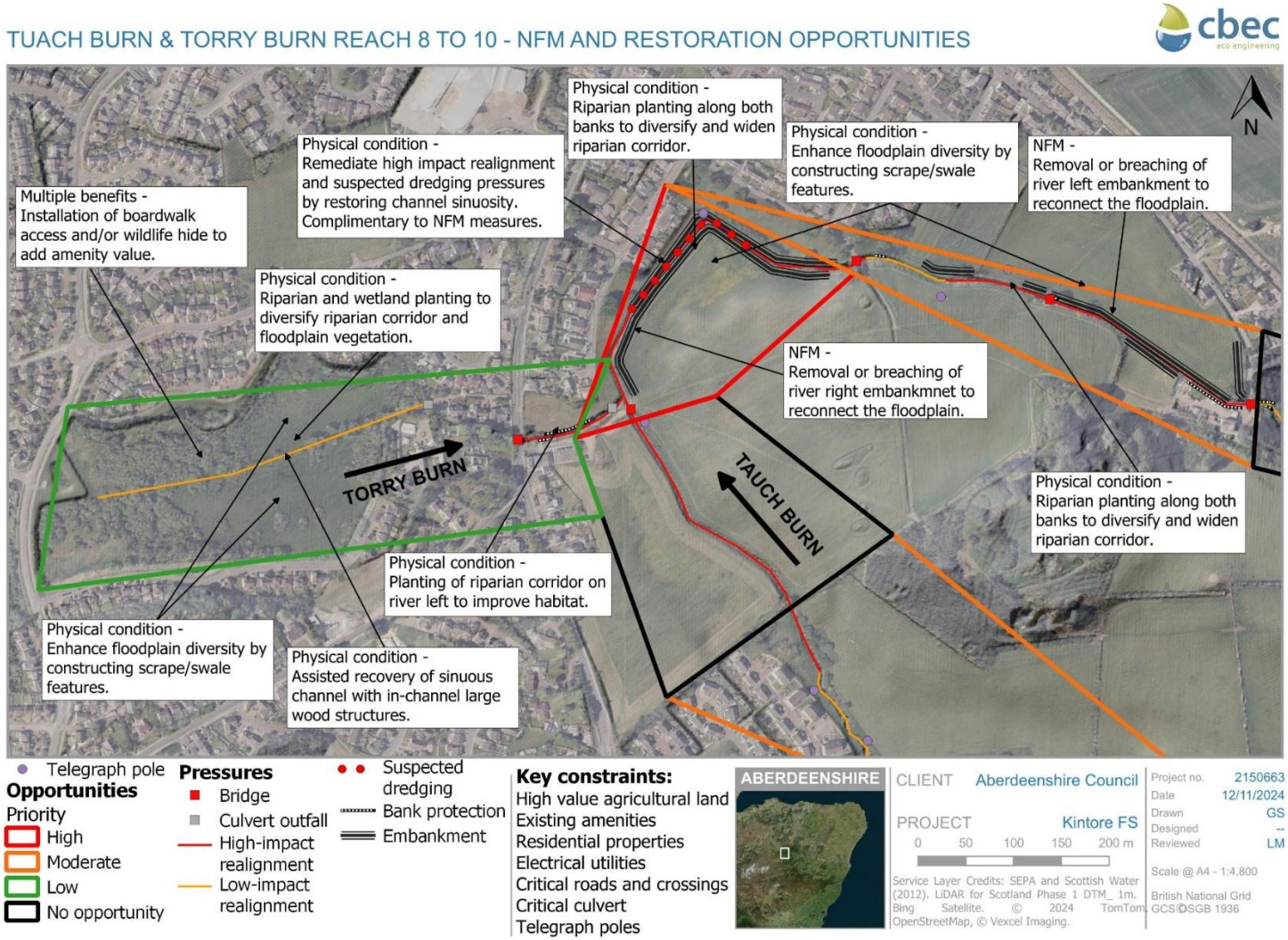

Figure 2-7 - Opportunities, pressures and constraints along reaches 8 to 10: Tuach Burn and Torry Burn, Kintore.

Table 2-2 - Potential options to improve RBMP status: River Don at Kintore

Reach Number	Priority	Geomorphic characteristics and pressures	Potential Options	Constraints	Multiple benefits
1	**Moderate** Scope for NFM and physical improvements with constraints. See Figure 2.2	▪ Unconfined valley setting. Sinuous channel characterised by homogeneous morphology. ▪ Significant pressures are: embankments, bank protection, high-impact realignment and a lack of riparian vegetation.	▪ Potential to set back or breach river right embankment to reconnect floodplain over rough grass area. ▪ Potential to set back a section of river left embankment to the edge of crop growing area. ▪ Potential to enhance floodplain habitat by installing wetland scrapes/swales where the river left and right embankments are set back from the bank. ▪ Establish or enhance existing riparian corridor.	▪ High-value agricultural land use across river left and right floodplains. ▪ Waste water treatment works on the river right bank towards the upstream extent of the reach. ▪ Buried gas utilities crossing the channel towards the middle of the reach. ▪ The river right bank is part of a fishing beat. ▪ Invasive non-native species (INNS) present: Giant hogweed ▪ A telegraph pole is located close to the river left bank towards the downstream extent of the reach.	▪ Riparian corridor aids channel stability. ▪ Riparian corridor benefits habitat and wildlife both on the banks and in the channel (e.g. in-channel cover, nutrients). ▪ Riparian corridor attenuates floodplain run-off and mitigates diffuse pollution associated with agricultural run-off. ▪ Roughness provided by a riparian corridor contributes to the attenuation of flood flows. ▪ Floodplain reconnection benefits physical condition as well as flood risk benefits.

Reach Number	Priority	Geomorphic characteristics and pressures	Potential Options	Constraints	Multiple benefits
2	**Low** Scope for physical improvements and minor NFM with constraints. See Figure 2.3	▪ Unconfined valley setting. Sinuous channel characterised by underdeveloped pool-riffle morphology. Two ox-bow lakes are present along the river right floodplain and a tributary joins the mainstem channel towards the upstream extent of the reach. ▪ Significant pressures are: embankments, bank protection and a lack of riparian vegetation. Bank poaching due to livestock is also prevalent.	▪ Potential to reconnect the floodplain where standing water is persistent on agricultural land by setting back, breaching or lowering embankments. ▪ Potential to establish sections of riparian corridor where there is a buffer zone between the channel and agricultural land. ▪ Potential to remediate the impacts of poaching by controlling livestock access and planting riparian vegetation. ▪ Potential to enhance existing wetland in river right oxbow lake if constraints relating to high-value agricultural land can be overcome.	▪ High-value agricultural land use across river left and right floodplains. ▪ The river right bank is part of a fishing beat. ▪ Sections of road and rail are in close proximity to the river banks and a critical road bridge crosses the channel. ▪ INNS present: Himalayan balsam and Giant hogweed. ▪ Telegraph poles in close proximity to the river left and right banks.	▪ Riparian corridor aids channel stability and reduces the need for hard bank protection pressures. ▪ Improved connection to floodplain benefits habitat and physical condition. ▪ Riparian corridor increases roughness, which contributes to the attenuation of flood flows. ▪ Riparian corridor benefits river bank and in-channel species (e.g. in-channel cover, nutrients). ▪ Riparian corridor attenuates floodplain run-off and mitigates diffuse pollution associated with agricultural run-off.

Reach Number	Priority	Geomorphic characteristics and pressures	Potential Options	Constraints	Multiple benefits
3	**Low** Scope for physical condition improvements. See Figure 2.3	▪ Unconfined valley setting. Sinuous channel with mostly homogeneous morphology, infrequent and localised deposition of bars and islands. ▪ Significant pressures are: embankments, bank protection, high-impact realignment and a lack of riparian vegetation. Bank poaching due to livestock is also impacting the reach. Bank protection is likely more extensive, but was concealed under high flows.	▪ Potential to establish riparian corridor where agricultural constraints can be overcome. ▪ Potential to remediate poaching pressures by controlling livestock access and establishing a riparian corridor.	▪ High-value agricultural land use across river left and right floodplains, including floodplain area inside set-back embankments that is used for grazing. ▪ INNS present: Himalayan balsam and Giant hogweed.	▪ Riparian corridor aids bank stability and reduces need for hard bank protection pressures. ▪ Riparian corridor improves habitat and provides benefits to river bank and channel species (e.g. in-channel cover, nutrients). ▪ Riparian corridor attenuates floodplain run-off and mitigates diffuse pollution associated with agricultural run-off.

Table 2-3 - Potential options to improve RBMP status: Tuach and Torry Burns at Kintore

Reach Number	Priority	Geomorphic characteristics and pressures	Options	Constraints	Multiple benefits
1	**Moderate** Scope for NFM and physical improvement. Constraints present. See Figure 2.5	▪ Unconfined valley setting. Mostly straight channel with simplified morphology. Somewhat connected to floodplain. A tributary channel joins the channel from river right. ▪ Significant pressures are: high-impact realignment, land-raising embankments, bank protection and flood walls.	▪ Potential to reconnect the floodplain along the river right, utilising the area of derelict land and playing field. ▪ Restoration of floodplain habitat by installing scrapes and swales. ▪ Removal of bank protection and land-raising embankment pressures to increase floodplain connectivity and improve physical condition. ▪ Potential to restore sinuosity through assisted recovery techniques. ▪ Potential to enhance the riparian corridor.	▪ Potential for contamination in derelict land. ▪ Potential impact to playing field. ▪ Some bank protection measures are in place to protect residential properties on river left bank. ▪ Floodplain reconnection potential is dependent on flood risk to residential properties on the river left floodplain.	▪ Increased floodplain connectivity. ▪ Enhanced river and floodplain habitat by improving physical condition ▪ Community benefits by providing engagement with nature.
2	**No Opportunity**	▪ Confined valley setting, straight channel with no floodplain space. ▪ No opportunity for improvements to physical condition or floodplain connectivity due to the limited space and close proximity to nearby roads and buildings.			

Reach Number	Priority	Geomorphic characteristics and pressures	Options	Constraints	Multiple benefits
3	**High** Scope for NFM and physical improvement. See Figure 2.5	▪ Partially confined valley setting. Straight channel with homogeneous character. Floodplain area located to the river right, but connectivity is restricted because the channel is incised. ▪ Key pressures are: high-impact realignment, bank protection and a lack of riparian vegetation. There are also two culvert outfalls and a weir. Note, whilst only discrete sections of bank protection were observed along this reach, it is suspected that it is continuous but was concealed under high flows.	▪ Potential to reconnect the floodplain to the river right. ▪ Potential to restore floodplain wetland habitat by installing scrapes and swales. ▪ Potential to remove bank protection and weir pressures to improve physical condition. ▪ Potential to increase sinuosity, utilising river left floodplain space. ▪ Establish a riparian corridor to improve physical condition.	▪ The pipe culvert outfalls may need to remain functional. ▪ Industrial buildings in close proximity to the river left bank.	▪ Increasing sinuosity and channel roughness aids floodplain connectivity and slows the flow. ▪ Benefits channel and floodplain habitat. ▪ Riparian vegetation provides roughness, which attenuates flood flows, and benefits in-channel species by providing cover and nutrients.

Reach Number	Priority	Geomorphic characteristics and pressures	Options	Constraints	Multiple benefits
4	**Low** Few significant pressures. Existing floodplain connectivity. See Figure 2.6	▪ Unconfined valley setting. Channel is slightly sinuous, mostly homogeneous in character. ▪ Significant pressures are: high-impact realignment, embankments and lack of riparian vegetation. There is also a foot bridge, pipe outfall and suspected dredging activity. The channel has been straightened along the whole length but has somewhat recovered sinuosity through the middle of the reach.	▪ Potential to remove river left embankment to improve floodplain connectivity and accommodate the restoration of a sinuous channel. ▪ Potential to restore sinuosity though assisted recovery techniques. ▪ Potential to enhance floodplain habitat on river right and left by installing scrapes/swales. ▪ Potential to establish a riparian corridor.	▪ Embankments on river right serve a SuDS scheme. ▪ A road bridge crosses the channel immediately downstream of the reach.	▪ Improvements to physical condition. ▪ Increased attenuation of flood flows through a sinuous channel and rough riparian corridor.
5	**No opportunities**	▪ Partially confined valley setting. Straight channel though some diversity of flow is introduced by bankside vegetation and collapsed bank protection. Riparian vegetation is diverse and mostly continuous along both banks. ▪ No opportunities are highlighted because the benefit to physical condition would be negligible and the proximity to high-value agricultural land to the river left and access track to the river right poses significant constraints.			

Reach Number	Priority	Geomorphic characteristics and pressures	Options	Constraints	Multiple benefits
6	**Moderate** Scope for physical improvement. See Figure 2.6	▪ Unconfined valley setting. Mostly straight channel flowing through a wide riparian buffer zone that borders agricultural land. ▪ Significant pressures are: high-impact realignment, embankments, bank protection and a lack of riparian vegetation. There is also a disused bridge and a weir. Note, bank protection was visible in discrete locations but is likely more extensive and was concealed by high flows.	▪ Potential to remove bank protection pressures and set back embankments to improve physical condition. ▪ Restoration of a sinuous planform could be achieved through removal of pressures and assisted recovery techniques. ▪ Establish a riparian corridor along sections where it is lacking.	▪ High-value agricultural land on the river left and right floodplain. ▪ Close proximity to school and access road. ▪ Close proximity to residential buildings. ▪ Telegraph poles in close proximity to channel banks.	▪ A riparian corridor aids bank stability and could be utilised to contain channel adjustments to within the existing buffer zone. ▪ Attenuation of flood flows through increased sinuosity and channel and floodplain roughness.
7	**No Opportunities**	▪ Confined valley setting with steep slopes grading down to the channel. Mostly straight channel with homogeneous character. Riparian vegetation is simple (lacking trees) but continuous. ▪ No opportunities are highlighted because the channel is confined. Measures to reconnect the floodplain and improve physical condition would be negligible without significant intervention.			

Reach Number	Priority	Geomorphic characteristics and pressures	Options	Constraints	Multiple benefits
8	**Low** Scope for physical improvements. Existing connected floodplain. See Figure 2.7	**Torry Burn** ▪ Unconfined valley setting. Channel is straight, though poorly defined through a well-connected floodplain, hosting wetland vegetation. Floodplain vegetation is dense but homogeneous. A wet woodland is present on the river left floodplain towards the upstream extent of the reach. Towards the downstream extent, the channel is straight with limited floodplain space and a homogeneous character. ▪ Significant pressures include: high-impact realignment and bank protection located towards the downstream extent of the reach. There is also a bridge, a culvert and bank protection. Low-impact realignment and underdeveloped riparian vegetation was identified in the vicinity of Torryburn Wood.	▪ Potential to recover sinuosity by installing in-channel large wood structures along the upstream section near Torryburn wood. ▪ Potential to enhance floodplain habitat by diversifying vegetation and installing large wood structures. ▪ Scrapes and/or swales could be installed more broadly across the floodplain to increase topographic variability. ▪ Boardwalk access and/or a wildlife hide could be installed to add amenity value for the local community. ▪ Potential to establish a riparian corridor towards the downstream extent of the reach.	▪ A bridge supports a road crossing. ▪ A culvert supports an access track to residential properties. ▪ Bank protection supporting electrical utilities located close to the river right bank.	▪ Community benefit by facilitating engagement with floodplain wetland and river habitats. ▪ Benefit to wildlife by enhancing habitat.

Reach Number	Priority	Geomorphic characteristics and pressures	Options	Constraints	Multiple benefits
9	**High** Scope for NFM and physical improvements. See Figure 2.7	▪ Unconfined valley setting. Mostly straight channel with homogeneous character. Riparian vegetation is continuous but simple (lacking trees). ▪ Significant pressures are: high-impact realignment and embankments. There is also a footbridge and sections where dredging activity is suspected.	▪ Potential to remove or breach river right embankment to improve floodplain connectivity. ▪ Total removal or setting back of river right embankment would create space to restore a sinuous planform and improve the physical condition. ▪ Potential to enhance floodplain habitat by installing wetland scrapes/swales. ▪ Diversify and widen riparian corridor.	▪ River left embankments in use as flood defence for adjacent residential area. ▪ Telegraph poles in close proximity to channel banks.	▪ Community benefit by enhancing existing recreational area. ▪ Flood risk benefit by reconnecting the floodplain and increasing roughness. ▪ Improvements to channel and floodplain wetland habitat. ▪ Riparian vegetation aids bank stability.

Reach Number	Priority	Geomorphic characteristics and pressures	Options	Constraints	Multiple benefits
10	**Moderate** Scope for NFM and physical improvements. See Figure 2.7	▪ Partially confined valley setting, confined by steep slopes grading down to the channel on river right. Mostly straight channel, homogeneous in character. ▪ Significant pressures are: high-impact realignment, embankments and a lack of riparian vegetation. There are also two bridges, located at the upstream extent and in the middle of the study site.	▪ Potential to remove or breach river left embankments to increase floodplain connectivity ▪ Potential to restore sinuosity through assisted recovery techniques. ▪ Potential to establish a riparian corridor.	▪ Bridge located in the middle of the reach. ▪ Bank protection/flood wall protecting buildings on the river right. ▪ Downstream embankment supporting a road. ▪ Potential constraint if floodplain land use is agricultural.	▪ Flood risk benefit by increasing channel sinuosity and roughness. ▪ Improvements to channel and floodplain wetland habitat.
11	**No Opportunities**	▪ Unconfined valley setting. Sinuous channel with diverse morphology and mature riparian corridor. The channel is impacted by few pressures, comprising an embankment on the river left at the downstream extent and a culvert that supports a rail crossing. ▪ No opportunities are highlighted here as measures will likely be destructive to existing good conditions for a negligible increase in floodplain connectivity and physical condition.			