

East Coast Railway Infrastructure Protection Projects

Public Consultation 1 Report

Bray Head to Greystones North Beach

COASTAL CELL AREA 5



Rialtas
na hÉireann
Government
of Ireland

Tionscadal Éireann
Project Ireland
2040



Jacobs



Iarnród Éireann
Irish Rail

Contents

1.	Introduction.....	2
1.1	Project Overview.....	2
1.2	Project Need	2
2.	Public Consultation	4
2.1	Introduction	4
2.2	Information Materials	5
2.3	Media.....	7
2.4	Direct Engagement	7
2.5	Public Information Events	8
2.6	Project Information Services	9
3.	Feedback from Public Consultation 1	10
3.1	Assessment Methodology	10
3.2	Overview of Submissions Received.....	10
3.3	Themes Raised During Consultation Process.....	10
3.4	Specific Responses from the Feedback Form.....	11
4.	Summary of CCA5 Feedback from Public Consultation No.1	17
4.1	Project Need	18
4.2	Project Scope.....	18
4.3	Emerging Preferred Scheme CCA5 Bray Head to Greystones North Beach	19
4.4	Climate Change	20
4.5	Safety.....	20
4.6	Consultation and Engagement.....	20
4.7	Construction	21
4.8	Policy and Planning	21
4.9	Surveys and Site Investigations.....	21
4.10	Environmental Impact Assessment	23
4.11	Public Realm	25
4.12	Design.....	26
4.13	Out of Scope	27
4.14	Next Steps.....	28
	Appendix A Leaflet	29
	Appendix B Brochure	31
	Appendix C Consultation posters on display	43
	Appendix D Press release.....	44
	Appendix E Stakeholder Email	46
	Appendix F Public Information Events	47
	Appendix G FAQs	49
	Appendix H Feedback Form	51
	Appendix I Total Submissions Received.....	57

1. Introduction

1.1 Project Overview

The East Coast Railway Infrastructure Protection Projects (ECRIPP) were established to provide improved coastal protection against predicted climate change effects of sea level rise and coastal erosion on the east coast railway corridor between Merrion Gates (Co. Dublin) and Wicklow Harbour (Co. Wicklow).

ECRIPP will deliver enhanced coastal protection to the existing railway infrastructure on the rail network between Dublin and Wicklow. The railway line in sections is vulnerable to the effects of coastal erosion, wave overtopping and cliff instability that are expected to increase both in frequency and severity in future years due to climate change effects.

The primary focus of this project is to address and implement protection of the existing railway and coastal infrastructure against the effects of coastal flooding and erosion in Coastal Cell Area (CCA) 5 – Bray Head to Greystones North Beach.

The other CCA locations currently are:

- CCA1 – Merrion to Dún Laoghaire
- CCA2/3 – Dalkey Tunnel to Shanganagh-Bray Wastewater Treatment Plant
- CCA6.1 – Greystones South to Newcastle
- CCA6.2 – Newcastle to Wicklow Harbour.

1.2 Project Need

The Dublin to Wicklow section of this line is a critical part of the east coast rail network, with southside DART, Gorey commuter and Rosslare Europort Intercity services operating along this scenic route.

In recent years, Irish Rail has seen an increase in the frequency of storm events as result of climate change, causing coastal flooding and erosion on the east coast of Ireland from Dublin to County Wicklow. This has been made evident with beaches and cliffs slowly being lost on an annual basis. This necessitates increased maintenance works to be carried out to respond to the effects of coastal erosion, wave overtopping and coastal flooding on the rail line and supporting infrastructure resulting in disruption to services such as delays and cancellations.



Figure 1: ECRIPP Route Map

CCA5 is the section of coast that stretches from Bray Head at Naylor's Cove to Greystones North Beach, north of Greystones Harbour. This frontage is mainly rural, with the train line running along the coastline in and out of tunnels.

The main hazards along this frontage are:

- Coastal erosion of beach and foreshore undermining cliffs and existing coastal defences
- Cliff instability from wave overtopping
- Rock falls and landslips.

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The Emerging Preferred Scheme taken forward to Public Consultation 1 (PC1) consisted of rock revetments (at Bray Head) and rock headlands with managed cliff recession (at Greystones North Beach).

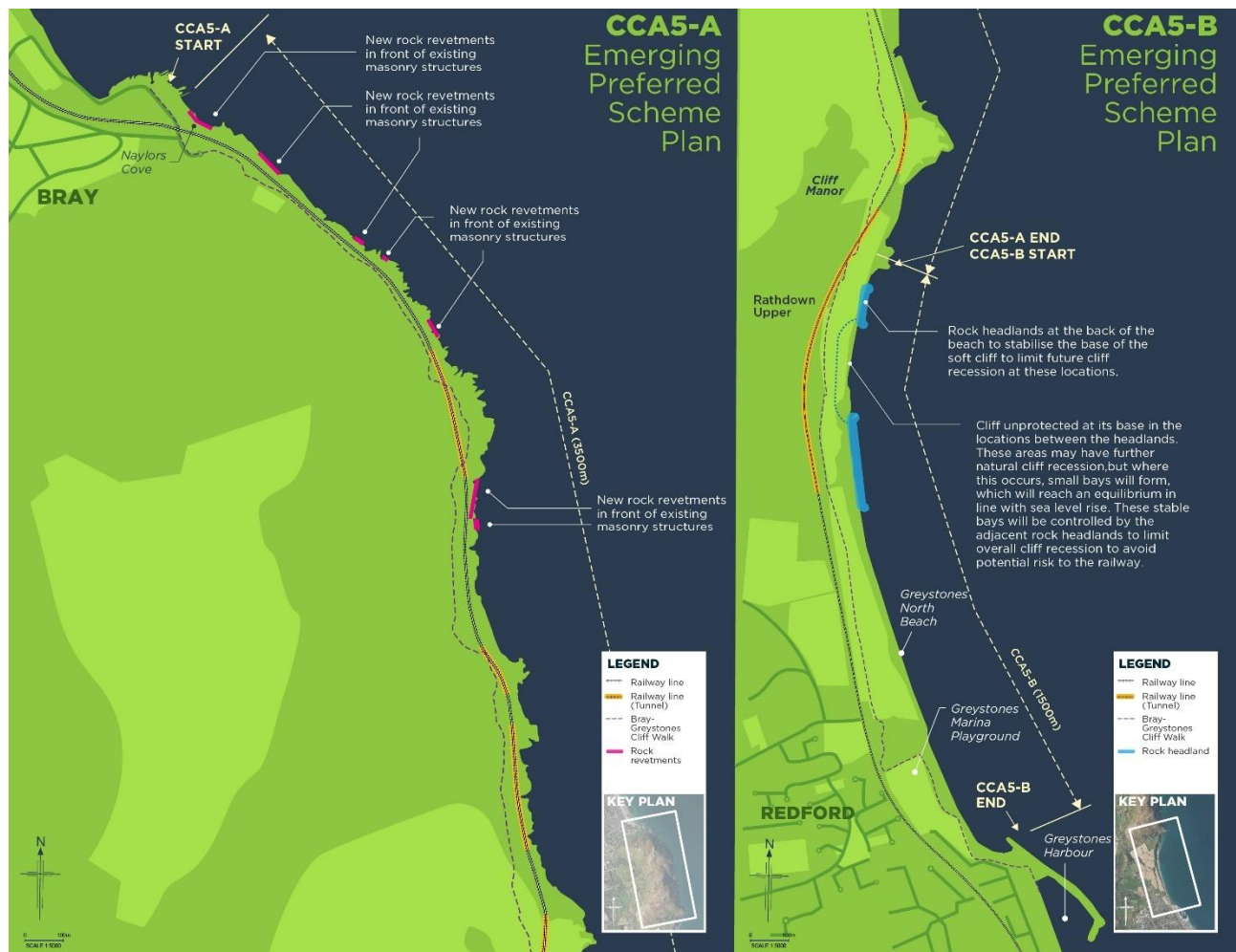


Figure 2 CCA5 Emerging Preferred Scheme

2. Public Consultation

2.1 Introduction

A Preliminary Option Selection Report was published on 6 November 2024 which outlined the proposed design solution for CCA5 Bray Head to Greystones North Beach. Irish Rail asked for feedback from stakeholders during a four-week, non-statutory public consultation that was held between Wednesday 6 November 2024 and Friday 6 December 2024.

PC1 sought feedback on the Preliminary Options Selection Report and Emerging Preferred Scheme for each of the five Coastal Cell Area projects: CCA1, CCA2/3, CCA5, CCA6.1 and CCA6.2. This report summarised the submissions received in relation to CCA5.

Irish Rail invited feedback on the following questions in relation to CCA5:

- Do you agree with the objectives of the East Coast Railway Infrastructure Protection Projects?
- Do you have any comments, suggestions, ideas on the presented Emerging Preferred Scheme for one or all Coastal Cell Areas as presented in the Preliminary Options Selection Report?
- Do you have any specific feedback on CCA5 and/or do you have any suggestions or ideas on the presented Emerging Preferred Scheme (e.g. structures, baseline, habitats, physical and environmental constraints, etc)?
- Do you have any other feedback that you would like us to consider?

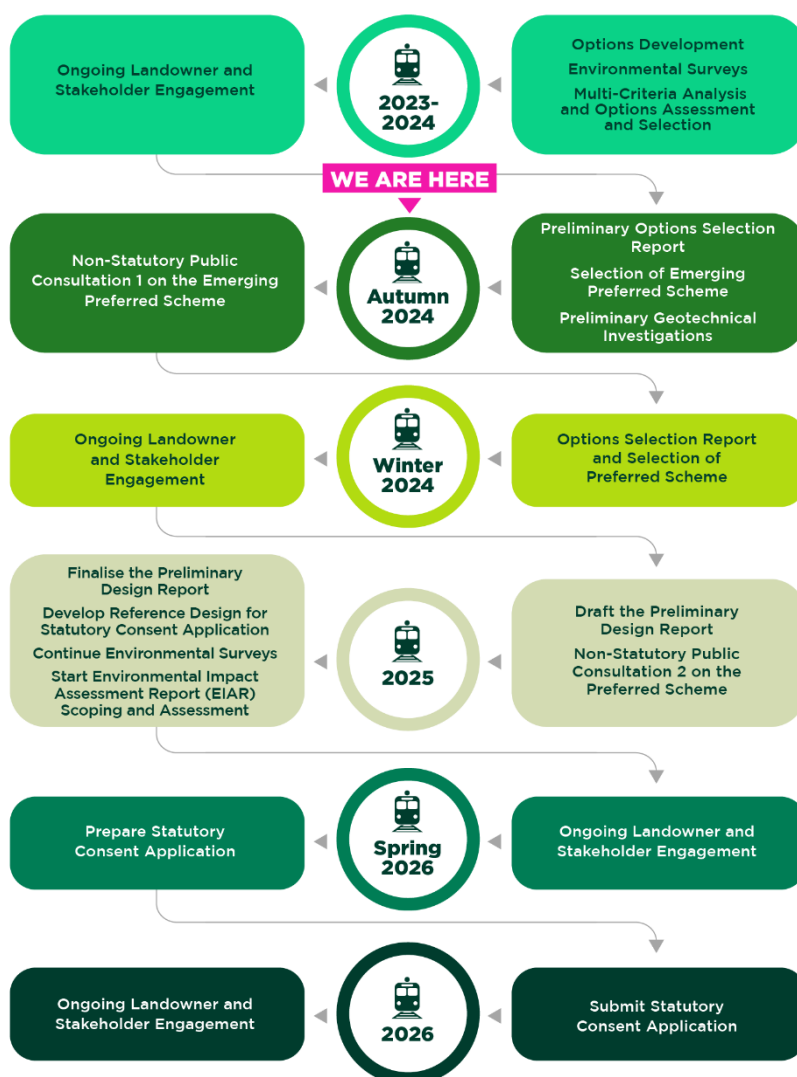
Submissions from individuals were reported anonymously while feedback from organisations was attributed to them. Submissions were not individually responded to and are summarised in this consultation report.

Comments and feedback received during PC1 will be used to prepare the Option Selection Report, to be taken forward to Phase 3 Preliminary Design stage (as per National Transport Authority (NTA) Project Approval Guidelines) of the Project which will identify the Preferred Scheme presented for Public Consultation 2 in autumn 2025.

Stakeholder and landowner engagement will be ongoing throughout the project. An Environmental Impact Assessment Report (EIAR) will be produced during Phase 4 (Statutory Processes). The EIAR will assess the potential environmental effects arising from the proposed Project, define mitigation measures and present residual impacts. The EIAR and Natura Impact Statement will form part of the planning application process. Feedback from this statutory consultation will also be considered in the development of the final design that is expected to be submitted for CCA5.

The consultation roadmap in Figure 3 below, illustrates the opportunities to give feedback on the project as it develops:

East Coast Railway Infrastructure Protection Projects (ECRIPP)



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Figure 3 ECRIPP Roadmap

2.2 Information Materials

2.2.1 Preliminary Options Selection Report

Irish Rail published a Preliminary Options Selection Report for CCA5 for public consultation on Wednesday 6 November. The report documents the development and analysis of options undertaken for CCA5 to the Emerging Preferred Scheme stage.

The Preliminary Options Selection Report is available to view and download on the Irish Rail website here: <https://www.irishrail.ie/en-ie/about-us/iarnrod-eireann-projects-and-investments/ECRIPP/emerging-preferred-scheme>.

2.2.2 Public Consultation Information Leaflet

A public consultation information leaflet was produced (**Appendix A**) and published on the Irish Rail website at the launch of the consultation on Wednesday 6 November 2024.

Public Consultation 1 Report

In addition to this, leaflet drops were carried out to over 209 addresses between Bray Head and Greystones north beach.

The leaflet included:

- Map of the CCA
- Overview of what the consultation was about
- The Emerging Preferred Scheme outlines for CCA5
- Details on how to engage and provide feedback.

2.2.3 Consultation Brochure

A consultation brochure for CCA5 (**Appendix B**) was created. The brochure included information on:

- Why coastal protection measures are required
- A map detailing the different Coastal Cell Area
- Objectives of the ECRIPP
- Public consultation process
- Current design status
- Key inputs of ECRIPP
- Selection process on the development of options
- Emerging Preferred Scheme
- What the consultation was about
- How to engage.

The brochure for CCA5 was available online and at the in-person events and was published and printed in both English and Irish.

The in-person consultation events also displayed informative pull up boards, maps, aerial footage and had feedback forms available for attendees to complete and return. Sample display material and the event layout can be found in **Appendix F**.

2.2.4 Project Webpage

A project webpage was launched at <https://www.irishrail.ie/en-ie/about-us/iarnrod-eireann-projects-and-investments/ecripp>. The webpage outlined the background of the project in addition to the project need. The webpage gave a detailed account of the consultation period and methods by which stakeholders could make a submission.

The Preliminary Options Selection Report, Environmental Constraints Report, Frequently Asked Questions (FAQs), information leaflet, project consultation roadmap and public consultation drawings were all made available to view and download. From the launch of the public consultation on 6 November 2024 up to 6 December 2024 the webpage has been viewed 5,368 times. The image below shows a screenshot of the ECRIPP project webpage. The website was also translated to Irish.

Public Consultation 1 Report

The screenshot shows the Irish Rail website. The top navigation bar includes 'Live Trains', 'Fares and Tickets', 'Timetables', and 'Travel Information'. The main content area is titled 'East Coast Railway Infrastructure Protection Projects ECRIPP'. On the left, there is a sidebar with 'About Us' and 'East Coast Railway Infrastructure Protection Projects ECRIPP' sections. The main content area features a large image of a coastal landscape with the text 'Clár Cosanta Bhonneagar Iarnróid an Ghósta Thoir' and 'East Coast Railway Infrastructure Protection Projects'. Below this, there is a 'Project Overview' section and a list of project milestones.

East Coast Railway Infrastructure Protection Projects Coastal Cell Areas



[Click here for an Accessible version of the ECRIPP Coastal Cell Areas map](#)

Where are we now?

We are currently in Phase 2 Project Concept, Feasibility and Option Selection. The design process and environmental studies for ECRIPP have commenced, and we are at a key stage in the project. Your participation and feedback is encouraged and we are interested in gaining your feedback and comments at this stage in the design process.

We have carried out several surveys to inform Phase 2. These surveys covered non-intrusive ecological surveys, topographic surveys and unmanned aerial vehicle (UAV) surveys. We are also undertaking ground investigation to inform the design close to the rail line.

[Please see link to AA Screening Declaration relating to the ground investigation survey.](#)

Public Consultation 1

Public participation during the design process is a key element in the delivery of ECRIPP. This project has a two non-statutory public consultation process. The first public consultation on ECRIPP is the 'Emerging Preferred Scheme' for each Coastal Cell Area. This current public consultation will consider all feedback received, to advance the design through to public consultation two.

Feedback is now requested on the 'Emerging Preferred Scheme' for each of the five Coastal Cell Areas. For further details visit the [consultation page](#).

Next Steps

The option selection process and design development that has been undertaken to date has led to the development of the emerging preferred scheme for each Coastal Cell Area that is the focus of Public Consultation 1.

Once the public consultation process is complete, all feedback and submissions received will be reviewed and

2.2.5 Frequently Asked Questions

A link to the FAQs on the Irish Rail website can be found here:

<https://www.irishrail.ie/en-ie/about-us/iarnrod-eireann-projects-and-investments/ECRIPP#faqs>

A copy of the FAQs can also be found in **Appendix G**.

2.3 Media

2.3.1 Press Release

A press release was issued to national and local media by Corporate Communications, Irish Rail. The press release introduced the ECRIPP, the need for it and gave details of the public consultation.

A copy of the press release can be found in **Appendix D**.

2.3.2 Advertising

Irish Rail used advertising spots and posters in train stations to promote the public consultation and how to provide feedback, in Blackrock, Seapoint, Salthill and Monkstown, Dún Laoghaire, Sandycove & Glashule, Glenageary, Killiney, Dalkey, Shankill, Bray, Greystones, Kilcoole and Wicklow. To view the poster and advertising spots please see **Appendix C**.

2.4 Direct Engagement

2.4.1 Stakeholder Correspondence

At the launch of the consultation on Wednesday 6 November 2024, a number of stakeholders and organisations were contacted by email including:

Public Consultation 1 Report

- Elected representatives
- Statutory bodies
- Interested stakeholders and organisations
- Local communities
- Wicklow County Council.

Email correspondence provided information on the ECRIPP and links to the consultation materials on the project website. It also contained details of the public consultation and information events the contact details of the project team and also the link to the feedback form.

Sample correspondence can be viewed in **Appendix E**.

2.4.2 Stakeholder Briefings

During the consultation period, the project team was available to meet with interested stakeholders.

Presentations were held with local authorities, interested stakeholders and Councillors in October and November.

Date	Stakeholder	Format
22/10/2024	Wicklow County Council – wider staff	Online presentation
25/10/2024	Wicklow County Council – Key Council Stakeholders	Online presentation
29/10/2024	Wicklow County Council Senior Management	In person
04/11/2024	Wicklow County Council – Councillors	In person
05/11/2024	Elected Representatives	Online presentation
12/11/2024	National Parks & Wildlife Service	In person
20/11/2024	Wicklow County Council Greystones Municipal District	Online and in person

Table 1 Stakeholder Briefings

2.5 Public Information Events

Four public consultation events were held during the consultation period. The events were well attended with 72 members of the public recorded.

Date	Venue
Tuesday 19 November 2024	Royal Marine Hotel, Dún Laoghaire
Wednesday 20 November 2024	Mermaid Arts Centre, Bray
Thursday 21 November 2024	Spotlight Studios, Wicklow Town
Tuesday 3 December 2024	Greystones Library, Greystones

Table 2 Public Consultation Events

At the consultation events, members of the public and stakeholders were greeted at the sign-in desk and provided with the ECRIPP public consultation brochure. Numerous displays were erected at the consultation events including project information, images and maps.

Stakeholders also had the option to view both the Preliminary Options Selection Report, the Constraints Report, maps and drawings at the events and have any questions and concerns answered by members of the project team. Images of the events can be found in **Appendix F**.

2.6 Project Information Services

A dedicated project information service was established at the launch of this public consultation period to facilitate any stakeholder queries and submissions. It was promoted on the project webpage, in advertisements, press releases, and all information materials relating to the project. Stakeholders were invited to contact the project team or make a submission through the following channels:

Email: ecrippenquiries@irishrail.ie

Post: ECRIPP, Engineering & New Works Building, Irish Rail, Inchicore Works, Dublin 8 D08 K6Y3

Telephone: 01 202 7900

3. Feedback from Public Consultation 1

3.1 Assessment Methodology

All submissions received either via email or through the feedback form were analysed and recorded by the project team on a dedicated consultation database and managed in line with the General Data Protection Regulation. Each individual submission was analysed to identify the theme(s) raised by the respondent and then classified accordingly.

All feedback provided was then anonymised before being analysed under each of the themes. A detailed summary of the feedback provided by stakeholders is presented below in Section 3 of this report. The feedback forms posed specific questions in relation to the proposed project. The questions and associated responses are assessed in Section 3.4.

3.2 Overview of Submissions Received

In total, the project team received 166 unique submissions from stakeholders. A breakdown of the engagement by channel is provided in Table 3.

Channel	No of Submissions
Email	75
Feedback form	91

Table 3 Submissions received

3.3 Themes Raised During Consultation Process

Feedback received during the consultation has been collated into themes in order to present the information in an accessible manner.

The themes identified for ECRIPP were:

- Project Need
- Project Scope
- Emerging Preferred Scheme
- Climate Change
- Safety
- Landowner
- Consultation and Engagement
- Construction
- Policy and Planning
- Surveys and Site Investigations
- Environmental Impact Assessment
- Public Realm
- Design
- Out of Scope

These themes may not apply to all Coastal Cell Areas depending on the feedback received.

3.3.1 CCA5 Feedback

Following a review, the feedback received under each theme was further refined and the key comments from the submissions for CCA5 were identified. Table 4 below provides an overview of the feedback for CCA5 under the themes identified and the number of references for each theme. Several submissions received during the consultation mentioned topics relevant across all five Coastal Cell Areas in ECRIPP.

Feedback Theme	No of References in Feedback
Project Need	69
Project Scope	23
Emerging Preferred Scheme CCA5	7
Climate Change	5
Safety	2
Consultation and Engagement	11
Construction	5
Policy and Planning	3
Survey and Site Investigations	2
Environmental Impact Assessment	18
Public Realm	9
Design	10
Out of Scope	15

Table 4 Themes

Section 4 of this consultation report comprises a summary of all submissions received for CCA5.

3.4 Specific Responses from the Feedback Form

As part of PC 1, a feedback form was provided on the project website to encourage participation in the public consultation. The form sought feedback on six specific questions. In addition, free space was available for stakeholders to provide additional views, and this was assessed by the project team and is included in the feedback summary at Section 4.

Eight specific queries were raised in the feedback form and the responses received are set out below.

Q4. Do you own or occupy property located within the immediate vicinity of a proposed Emerging Preferred Scheme?

53% of respondents identified as owning or occupying property within the immediate vicinity of an Emerging Preferred Scheme.

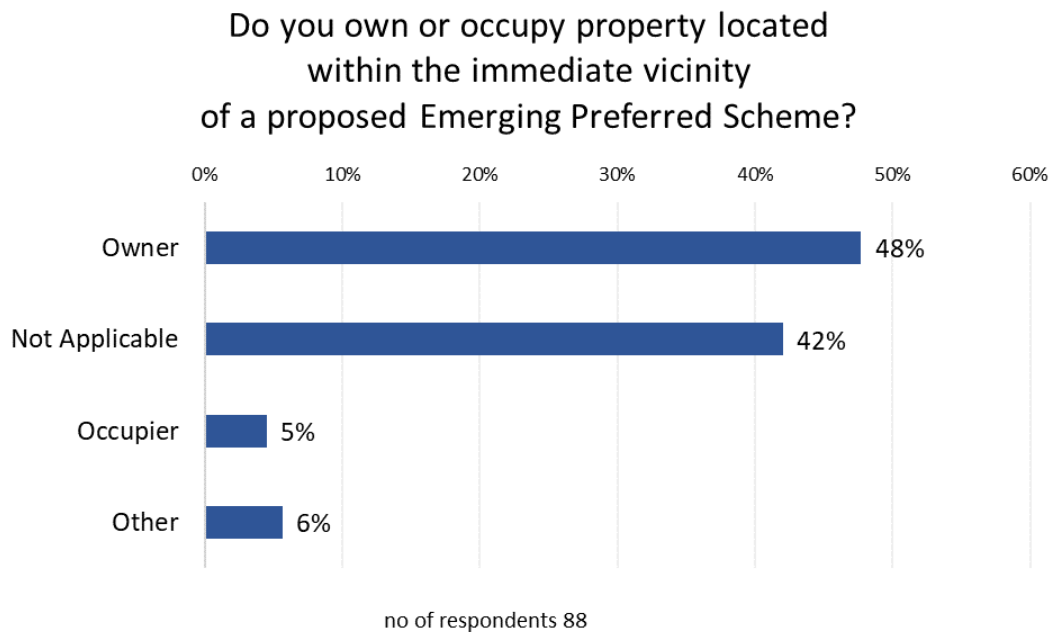


Figure 4 Response to Q4 Feedback Form

Q5. Do you live adjacent or close to the railway line?

50% of respondents identified as living close to the railway line. 36% did not live in the vicinity of the railway line.

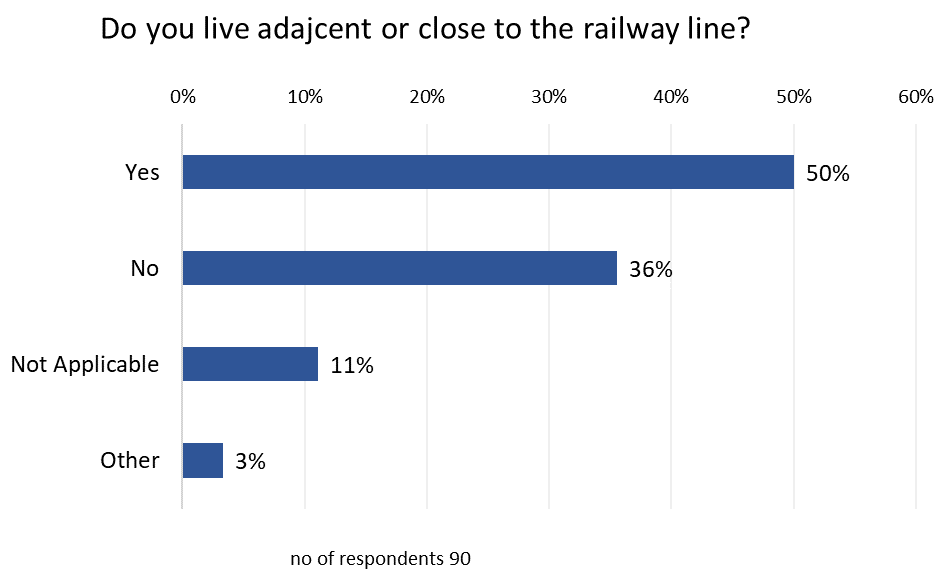


Figure 5 Response to Q5 Feedback Form

Q7. Are you a regular user of the railway?

27% of respondents used the railway daily and 36% weekly; the remaining 37% intermittently.

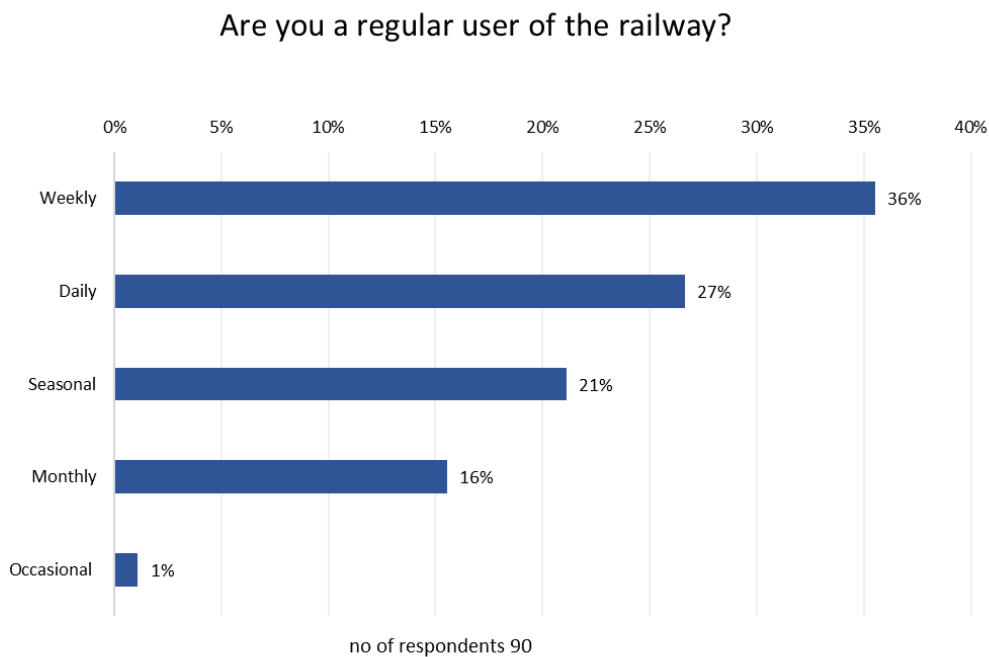


Figure 6 Response to Q7 Feedback Form

Q8. I am making this submission in my capacity as a:

87% of respondents were members of the public followed by 16% who identified themselves as landowners. 7% were from Resident/Community groups.

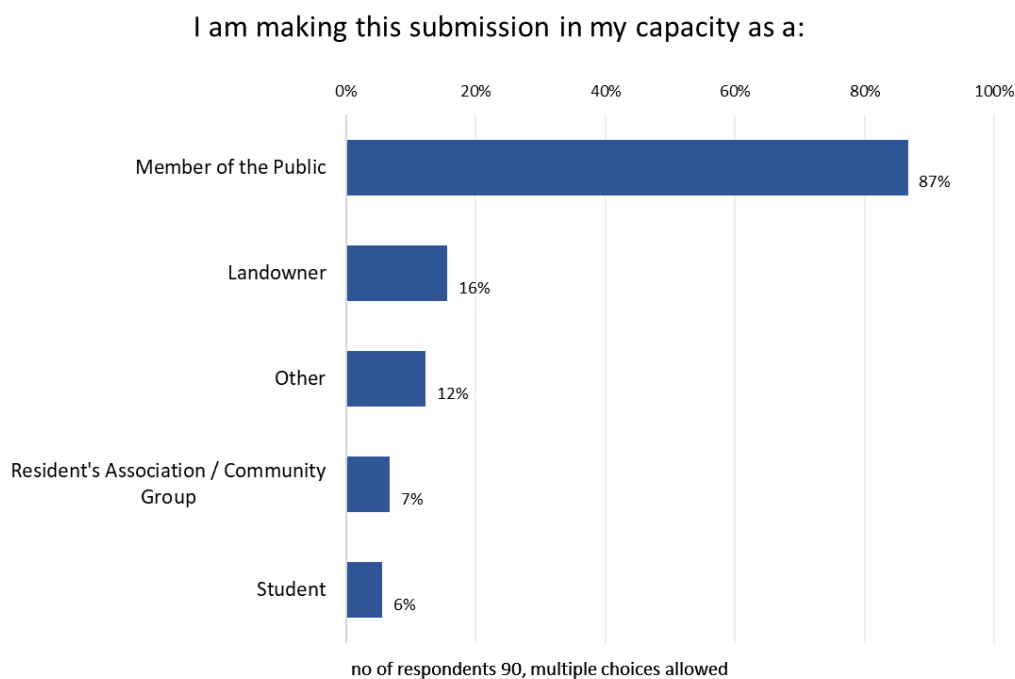


Figure 7 Response to Q8 Feedback Form

Q9. Five key locations, termed Coastal Cell Areas between Merrion Gates (Co. Dublin) and Wicklow Harbour (Co. Wicklow) have been identified and assessed as particularly exposed to coastal erosion and climate change effects. Which CCA is of most interest to you?

63% of respondents ranked CCA1 Merrion to Dún Laoghaire first as of most interest to them. CCA2/3 Dalkey Tunnel to Shanganagh-Bray Wastewater Treatment Plant was ranked as being of second most interest to respondents.

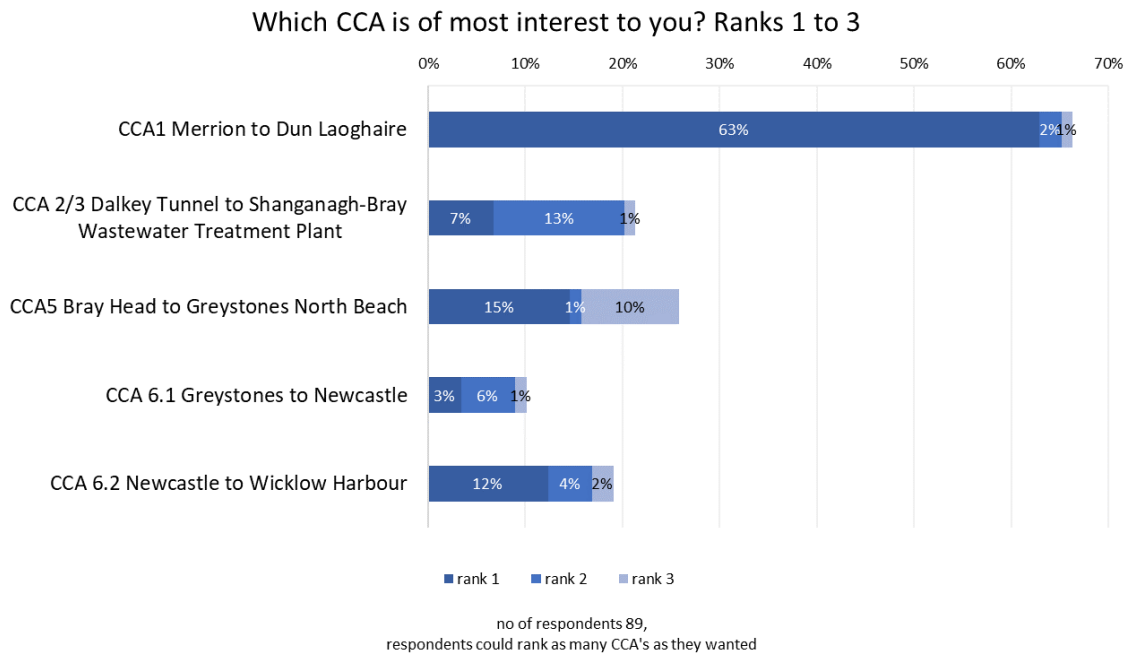


Figure 8 Response to Q 9 Feedback Form

Q10. As a result of climate change, more frequent storm events are having increasing effects on the coastal front, in terms of coastal erosion, wave overtopping and coastal flooding. Do you agree with this statement?

63% of respondents strongly agreed with the statement followed by 30% who agreed. 5% remained neutral and 2% did not agree.

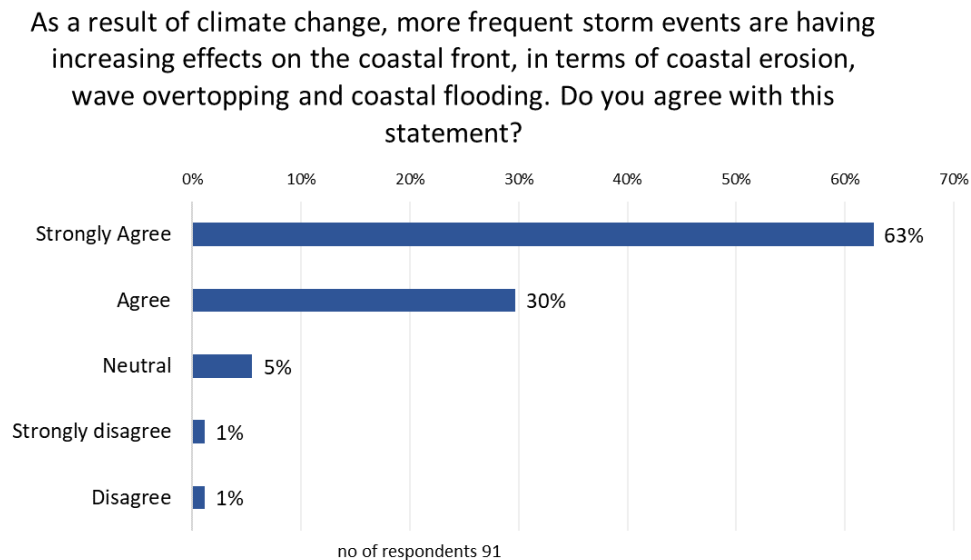


Figure 9 Response to Q10 Feedback Form

Q11. If coastal erosion continues and the railway becomes inoperable, will this have a significant effect on you?

85% of respondents agreed that if the railway becomes inoperable due to coastal erosion it would have a direct impact on them.

If coastal erosion continues and the railway becomes inoperable, will this have a significant effect on you?

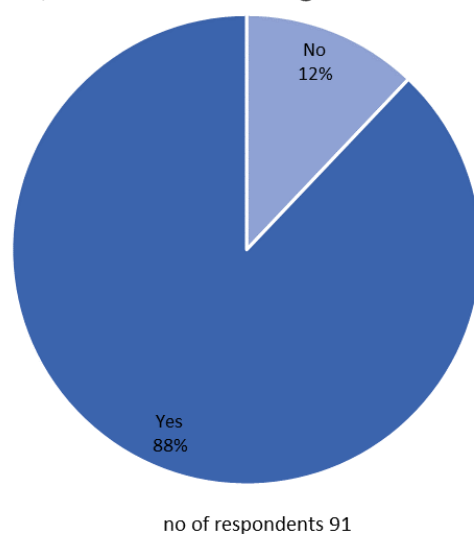


Figure 10 Response to Q11 Feedback Form

Q13. Do you agree with the objectives of the East Coast Railway Infrastructure Protection Projects?

Respondents predominantly either strongly agreed or agreed with all the objectives of ECRIPP. On average 65% of respondents strongly agreed with each objective.

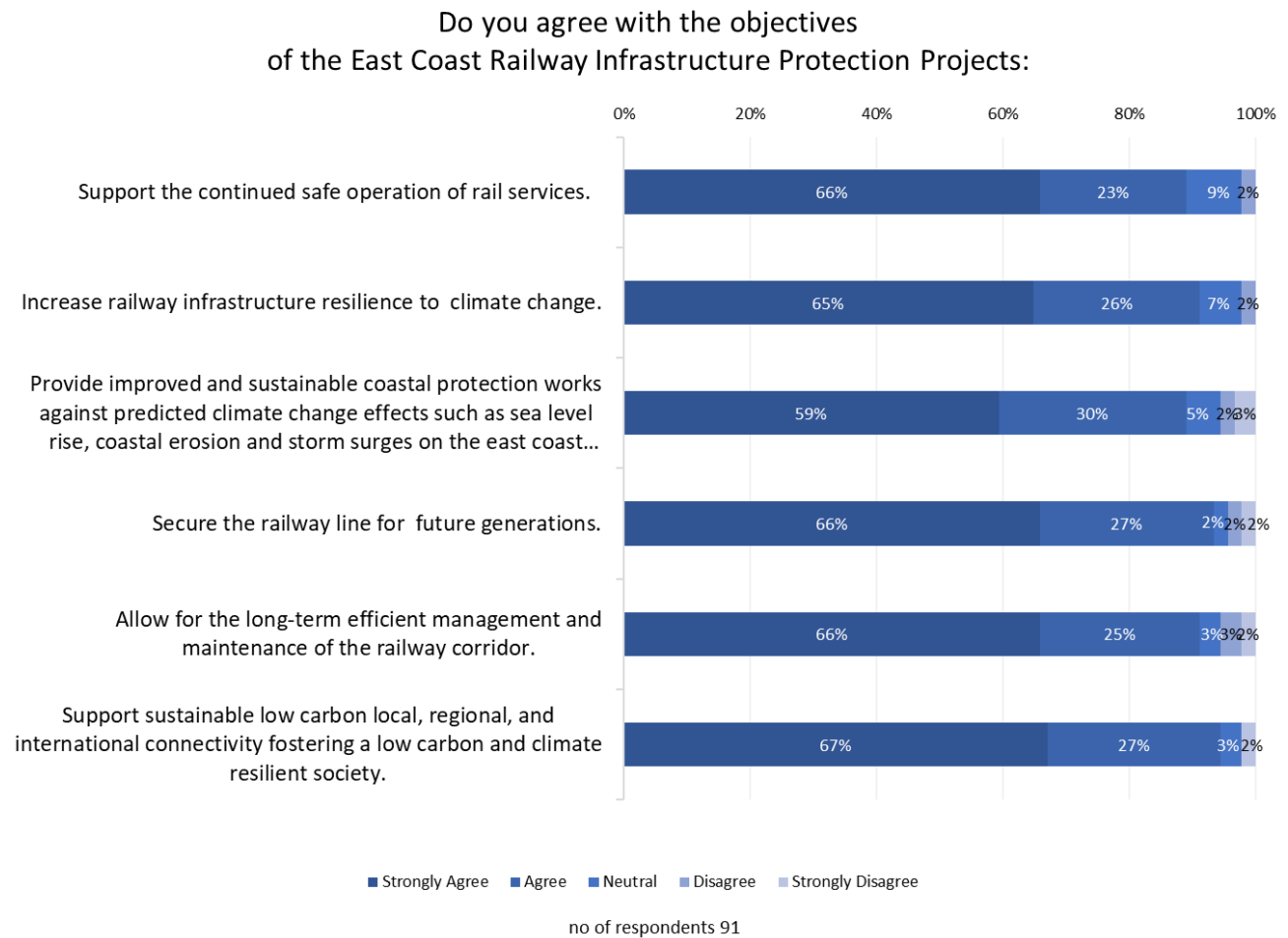


Figure 11 Response to Q13 Feedback Form

4. Summary of CCA5 Feedback from Public Consultation No.1

CCA5 feedback received during the consultation has been collated into the following 13 themes and is summarised in this section of the report:

- Project Need
- Project Scope
- Emerging Preferred Scheme CCA5
- Climate Change
- Safety
- Consultation and Engagement
- Construction
- Policy and Planning
- Surveys and Site Investigations
- Environmental Impact Assessment
- Public Realm
- Design
- Out of Scope

The feedback presented in Section 4 reflects the comments received by the project team and does not represent Irish Rail's views on the particular issues. It is presented to show the broad nature of feedback provided and to ensure that the project has regard to the views presented during the consultation.

The views are held by those who made submissions as part of the public consultation process. The order in which issues in the feedback section are outlined, reflects their sequence in the consultation document and there is no bias implied by the order in which they are summarised

4.1 Project Need

Several respondents including South East on Track, Wicklow County Council (WCC) and Dún Laoghaire Rathdown County Council (DLRCC) expressed their support for the project to secure the continued safe operation of the railway. The direct impact climate change has on the railway line, in particular at Seapoint, Bray Head and the Murroughs was recognised.

'Several Stakeholders recognised the importance of ensuring the railway infrastructure on the east coast is protected. The preservation of the DART line as a vital infrastructure for Dublin city and the greater Dublin areas.'

Bray Head Residents' Association (BHRA) acknowledged the importance of the railway line around Bray Head and welcomed the commitment to protect this critical infrastructure against erosion from the sea out to 2100.

Many stakeholders commented directly or indirectly about the project need. Most of them discussed how the potential lack of rail services would impact their ability to travel for work, education and other purposes. Several submissions expressed support for protecting the infrastructure in order to keep rail services running.

Respondents mentioned if the railway is rendered inoperable it will impact them directly as they use the service daily to commute to work, education, or for other personal matters.

'My family and I are regular users of the Dart service from Bray to Dún Laoghaire and Dublin City - any impact on the operation of the line has a significant impact on our ability to commute to work/education.'

There were some comments that rail is a more sustainable means of transport or that it is the preferred and most reliable mode of transport.

'If trains are not available, other forms of transport are worse for the environment and it will cause an even worse impact.'

Some respondents commented that rail services are faster and more reliable than car journeys, in particular where there is no bus alternative to rail. They added that if the railway is not operable, they will be forced to use cars and traffic congestion will worsen.

'If the railway is inoperable, I will be forced to use my car for regular trips to Dún Laoghaire and beyond.'

Many respondents raised concerns about the project, mostly around the negative impact from proposed works on amenities, public paths along the cliffs and access to beaches and the seaside. They highlighted the need to protect the railway line should not be valued more than public rights of way, amenity value or access to the public beaches. This is detailed more fully in Section 4.3 Emerging Preferred Scheme.

4.2 Project Scope

In the context of the project scope, stakeholders most often suggested improvements to rail services and train frequency, or improving the amenities of the surrounding area, particularly facilitating walking/cycling lanes along the railway line wherever possible. Stakeholders highlighted that ECRIPP could provide the opportunity to improve and expand public access to the sea, cliffs and beaches along the east coast, by adding cycle and pedestrian paths as part of the coastal protection works.

The Cliff Path at Bray Head was mentioned in several submissions and requests for it to be incorporated as part of the scope.

Several submissions proposed the continued importance of engaging with WCC and Transport Infrastructure Ireland regarding any works which will impact the Bray/Greystones Cliff Walk to allow for coordinated works between Irish Rail and WCC. DLRCC also highlighted that ECRIPP should be cognisant of several concept proposals and development plans to improve the public realm along the coastline.

A submission noted it as essential that long-term protection works are undertaken and suggested that Irish Rail engage with the Dutch Authorities to learn about their experience of sea protection.

There were suggestions from stakeholders to secure space for additional (third) tracks & dynamic/passing loops on the east coast railway to further improve the service and increase capacity for rail users. They stated the

importance of this line and highlighted that any current project should not limit potential for future development.

There were references to the Sutton to Sandycove scheme, as a good example of a project providing public paths and improving public amenities in the area.

Submissions commented on the suitability of the transport infrastructure overall along the east coast. They commented if trains need to be upgraded in the next 10 to 15 years, there may be potential to complete preliminary work as part of ECRIPP.

A respondent commented that the more innovative options identified during the Multi-Criteria Assessment had been discounted too early in the process without appropriate justification. They requested that these options (or combinations of these options) be given further consideration as part of the option development process. They further commented that appropriate consideration has not been given to community, environmental and biodiversity outcomes as part of the options assessment. Suggestions for solutions for further consideration involved detached breakwaters, beach renourishment and sand engines. The respondent summarised that Irish Rail has an obligation to ensure the project is delivered with regard to community uses, environmental and biodiversity outcomes and likely significant effects on Special Protection Areas (SPAs).

4.3 Emerging Preferred Scheme CCA5 Bray Head to Greystones North Beach

While giving feedback about proposals for Emerging Preferred Scheme - CCA5 Bray Head to Greystones North Beach, several stakeholders expressed support for preserving the DART line and the proposed Emerging Preferred Scheme.

Submissions suggested incorporating cycling and walking paths into the design. Particular attention was drawn to the cliff path at Bray Head, its importance as an amenity and concern that the Emerging Preferred Scheme does not address reinstating or maintaining these paths.

There was concern that the public path between Bray and Greystones will be closed. There were further comments that the proposed rock revetments are insufficient, as current erosion observed at Bray Head is severe, and the proposed design leaves gaps between existing rock revetments and Greystones. Respondents were concerned that there is already a health and safety risk of falling rock at Bray Head.

WCC commented that the two rock headlands proposed for Greystones North Beach does not solve coastal erosion between the proposed headlands and the existing rock revetments of Greystones North Beach.

WCC noted the proposed gap between the rock headlands and Greystones would be over 1km. They commented the proposed rock headlands could increase the level of erosion between the proposed headlands and the existing rock revetments. They further commented cliff recession would most likely increase in this area due to wave energy. WCC stated their preference that the design consider protecting the amenity value of Greystones North Beach and if possible, reducing wave energy.

BHRA commented that all proposed works within CCA5 are within a Special Amenity Area Order (SAAO) which may impact planning process for CCA5. The SAAO also lists a number of objectives regarding perseverance and enhancement of the area where CCA5 is planned, including social, recreation, the special character of the area and the railway's protection. BHRA welcomed the planned preparation of an Environmental Impact Assessment Report for the ECRIPP projects.

BHRA also mentioned Naylor's Cove as an important local historical amenity in the area, which needs to be preserved and even enhanced. BHRA commented that any planned railway protection and revetments in the vicinity of the Naylor's Cove should not restrict access or impact its character and historical value.

BHRA also raised the need to assess and mitigate biodiversity impacts of the proposed works. They also made a comment about risk of beach starvation due to proposed works and the need to mitigate against it. At the end

of their submission, BHRA commented on the impact of works on the Bray Head cliff walk and the need to improve its amenity value where possible.

4.4 Climate Change

Respondents agreed that there was an immediate risk to the railway line from climate change and that those changes will have a significant impact on their lives if not mitigated. One stakeholder suggested that proposed coastal defences should be adjusted accordingly to meet the minimum of 1.1m sea level rise by the year 2100.

One stakeholder cited the Accomplish Project in association with DCU and Trinity College Dublin that aims to facilitate increased reporting of coastal landslides so that coastlines may be better managed. They commented that increased rainfall and intensity, with drainage from farming is leading to significant coastal erosion and argued placing barriers to limit incursion by waves will not have the effect desired. They suggested rewilding, planting and change of land use would have a more positive impact on limiting coastal erosion. They further noted the Accomplish Project found that the biggest risk from climate change on the railway line at Greystones North Beach area is from increased rainfall and surface run off.

An Táisce highlighted that current planning for railway protection which only considers a 0.5m sea level rise needs to be reconsidered. They suggested the consideration of high-emissions, high sea level rise scenarios in future infrastructure risk planning is crucial for the east coast railway line. They also noted that the risk of significant sea level rise is further exacerbated by the projected thinning of the Greenland and Antarctic ice sheets as a result of global heating patterns, which is not always included in climate change modelling. They suggested that the project design needs to factor in at least 2m of sea level rise by 2075 to ensure a precautionary and robust approach as well as value for public money.

4.5 Safety

DLRCC requested to ensure the walkway environment is safe for pedestrians and allows for good visibility and passive surveillance. Secluded areas on the pathway were also highlighted and should be avoided, where possible, as these could create a rise in anti-social behaviour.

WCC highlighted that the location of a walkway between the rock headlands and cliff face as part of the proposed scheme, could create a safety issue due to collapse of the cliff face and wave overtopping.

4.6 Consultation and Engagement

A submission commented that the consultation events should have been extended, and the event at Dún Laoghaire was very time limited. Other respondents commented on the same event finding it useful and project staff very helpful.

A respondent commented the public consultation events could have been advertised better. They expressed concerns that ECRIPP included significant proposals, and local residents could have been better informed on the consultation events.

BHRA highlighted it as important that as the plans for ECRIPP are progressed, the SAAO Management Committee is consulted on an ongoing basis. The Committee is representative of WCC, local landowners, local community groups, residents of the area and the National Parks and Wildlife Service and it has a responsibility for producing the Management Plan, for monitoring environmental quality and for monitoring implementation of the Plan.

One submission queried why the consultation was taking place in November when the amenity is in heavy use in the summer.

Killiney Bay Surf Club welcomed the opportunity to attend the consultation events and meet the project team.

Several respondents urged ECRIPP continue to engage meaningfully with the local community and stakeholders to ensure that any works that are carried out are both effective and carefully designed to preserve the unique character of the area.

4.7 Construction

Submissions expressed concern at the impacts of construction and the additional disruption to the trains whilst works were to take place. A stakeholder requested further clarity on a timeline of when works might begin.

WCC suggested a proposed phased programme of works detailing the various time scales for works would be helpful for both the public and council.

DLRCC requested a Construction Environmental Management Plan (CEMP) to cover the following specific tasks:

- Project Overview
- Environmental Impact Assessment
- Pollution Prevention and Control
- Site Management
- Emergency Response Plan
- Monitoring and Reporting
- Training and Awareness.

DLRCC highlighted that by addressing these key areas, a CEMP ensures the construction activities are carried out in an environmentally responsible manner, minimising negative impacts on the surrounding environment.

4.8 Policy and Planning

A submission commented that Irish Rail has an obligation to ensure the project is delivered in accordance with the existing legislative and policy frameworks, which include having regard to community uses, environmental and biodiversity outcomes and significant effects on European Sites. They further commented that it is essential that the options development process is robust and just, and where options are screened out, a valid and justifiable rationale is provided. The respondent noted if the above is not considered and alternatives not fairly and reasonably explored in the options stage, it could impact the planning process, delaying project completion.

Killiney Bay Community Council queried why the Maritime Area Regulatory Authority (MARA) Marine Usage Licence Application submitted was not made publicly available for PC1. They commented that ECRIPP has completed several scoping reports for the current project as part of the MARA application as required under the Habitats Directive and Birds Directive and queried why these reports, including any Natura Impact Statement, were not made publicly accessible as part of the public consultation process.

BHRA suggested that any ECRIPP work within the Bray Head SAAO area must be in conformity with the SAAO, and that planning permission in accordance with the requirements of the SAAO be applied for. This is in addition to any other consents that are required under legislation. BHRA welcomed the intention to prepare an environmental impact assessment report as ECRIPP progresses.

4.9 Surveys and Site Investigations

Killiney Bay Community Council's submission queried whether ground investigation survey works including drilling and bore holing had begun with regard to Screening for Appropriate Assessment. They further queried why information and surveys submitted as part of the MARA Marine Usage Licence Application was not made publicly available for PC1. The Community Council sought clarification why the proposed works are not subject to a full screening for appropriate assessment at this stage in the project and subject to public consultation. They further commented that in accordance with the Habitats Directive, at this phase of the works, a full screening for appropriate assessment / EIA screening should have been completed given several European sites are 'within the zone of influence' of the proposed works.

The National Monuments Service of the Department of Housing Local Government and Heritage requested the following specific investigations are undertaken prior to applying for planning consent in order to inform the engineering and architectural design of the Flood Relief Scheme, the contents of the Cultural Heritage assessment in the EIAR and its attendant mitigation proposals:

- A desk-based assessment should address the terrestrial and underwater cultural heritage of the CCAs, to include a full inventory, mapping and surveys (photographic, descriptive, photogrammetric, as

appropriate) of all archaeological, underwater and cultural heritage features and structures identified by field inspections, cartographic analysis, historical and archival research and prior archaeological investigations. The field survey should include a visual inspection of the CCA, as well as any cliff exposures to identify archaeological features and palaeolandscape deposits. They suggest this survey is best carried out following vegetation clearance (where permitted) or during winter, when vegetation cover is less dense. The desk study, supported by comprehensive archival and historical research and detailed field inspection should inform the scope and range of further archaeological investigations to be undertaken.

- Targeted non-intrusive advance geophysical survey or prospection (where practicable) of all areas where substantial ground disturbances are proposed.
- Targeted advance archaeological test excavation (where practicable) of all areas of high archaeological potential identified in the desk study and/or advance geophysical surveys.
- Advance Underwater Archaeological Impact Assessment, to include dive/wade, intertidal survey and metal detection surveys of all areas where marine works (including temporary works) are proposed.
- Comprehensive buildings archaeology assessments of built heritage structures and features that may be impacted upon within the proposed development area.
- All intrusive advance investigations (such as, but not limited to, ground investigations for soils/geology/hydrogeology) carried out as part of the EIA or design process should be subject to advance archaeological screening to be agreed with the Department of Housing, Local Government and Heritage (DHLGH) and a programme of archaeological monitoring by a suitably qualified archaeologist.

4.10 Environmental Impact Assessment

4.10.1 Architecture, Archaeology and Cultural Heritage

BHRA noted the historical importance of Naylor's Cove and Bray Head Cliff Walk, and all efforts should be made to preserve the remains of the swimming baths and associated buildings. BHRA cited "Enhancing the receiving environment" as identified in the objectives for CCA5, is of particular importance, and requested that any protection works be undertaken in a manner that improves Naylor's Cove as a recreational amenity.

An Táisce requested that the built heritage value of original historic seawalls is maintained. Another submission commented that the heritage of the area should be prioritised before going to consultation.

The National Monuments Service of the DHLGH requested that in light of potential effects on underwater cultural heritage, that a programme of pre-development underwater archaeological assessment should be scoped into the design process as soon as is practicable. The Department requested further specific investigations are undertaken prior to applying for planning consent in order to inform the engineering and architectural design of the FRS, the contents of the Cultural Heritage assessment in the EIAR and its attendant mitigation proposals. This is detailed in Section 4.9.

4.10.2 Landscape and Visual

DLRCC commented that the raising of existing wave walls will have a significant visual impact on the view to the sea from the surrounding areas and from the DART itself. They requested that detailed visual impact assessments need to be provided so that the impacts can be properly assessed. They further suggested that where important vistas are impacted, consideration should be given to providing glazed openings in the walls.

4.10.3 Hydrology

Birdwatch Ireland highlighted their concerns about the wider hydrological changes and impacts to the wetland habitats along the coast from Dublin to Wicklow, as this area is highly sensitive for wild birds. They commented that works could erode habitat in the mudflats by dispersing the energy of the sea to other areas and diminishing the quality of habitat available for the range of bird species that use this stretch of coastline. In particular, Dalkey to Shanganagh, Booterstown Marsh and Greystones to Newcastle. They noted it as critical that Irish Rail adheres fully to the Birds Directive and Habitats Directive as well as the Water Framework Directive to ensure no significant impact to the hydrology of the Wicklow and Dublin coastal wetlands.

4.10.4 Land and Soils

BHRA were particularly concerned with loss of beach. They commented the Seafront at Bray has had to be protected by extensive artificial beach nourishment with offshore gravel taken from the gravel banks off the coast. They requested that any impact due to the CCA5 works will need to be fully assessed and where necessary mitigated. BHRA recognised that ECRIP is focused on coastal erosion and thus rockfall and landslip are not the primary objective. However, they noted the potential scope to reduce these risks through better drainage integrated with rock revetments.

4.10.5 Alternatives

Stakeholders suggested a number of alternatives for the Emerging Preferred Scheme presented for CCA5 including realignment of the railway line inland.

Submissions suggested moving the east coast railway line inland which could afford the possibility of twin tracks and high-speed long-distance trains. They noted this option should be considered as offering a more sustainable solution in the long term. One respondent commented that coastal protection measures are largely

temporary in nature and serve to increase erosion in neighbouring areas and represent poor value for money compared with more costly measures such as retreat from the coastline.

For CCA5 it was suggested a tunnel is bored under Bray Head. A respondent suggested rewilding, planting and change of land use at Greystones North Beach would have a more positive impact on limiting erosion on the soft clay cliffs from surface run off.

An Táisce raised concerns regarding sea level rise and highlighted the need for consideration of an alternative inland railway option. They noted an inland railway would help to alleviate traffic congestion on the N11 on the busy approach towards Dublin and may help to overcome existing problems encountered by the Rosslare to Dublin train service due to its co-occurrence with the DART on the same line.

4.10.6 Biodiversity

There were multiple references to biodiversity in the submissions received. Several submissions referenced the need to protect the natural habitats, wildlife, Special Conservation Areas (SAC) and sensitive environments near the railway line and areas under proposal. In particular the negative impacts to biodiversity in White Rock Beach, Booterstown Marsh, Bray Head and Killiney Bay North.

It was universally agreed that the railway line needs to be protected but many respondents requested this is completed in a way which enhances the environment.

Submissions highlighted the impact human activity would have on bird nesting sites if plans introduce walkways and cycleways as part of the proposed works. There were also concerns that works could make beaches and marine areas more which would encourage more people and dogs and disturbance to wildlife.

BHRA were particular concerned with the Bray Head SAC and SAAO for Bray Head. And that any works proposed by ECRIPP must be cognisant of both the SAC and SAAO objectives in terms of habitat and species protection.

Two submissions, including An Táisce, noted the potential for geotextile fabric shown on all sections as a base layer for rock armour to degrade into marine pollution over time and affect local biodiversity. They suggested the projects consider any natural material options that could be sufficient to secure the rock armour or to avoid use of geotextile altogether where there is a rocky base.

DLRCC requested technical experts including habitat and species specialists to cover all specialisms required, along with coastal ecologists, marine ecologists and geomorphologists to provide input to the optioneering stage. DLRCC suggested a meeting with these specialists and DLRCC Biodiversity to discuss matters in relation to how the options selection process addresses biodiversity in the context of coastal processes, protected habitats and species; and any changes caused as a result of the various options. They required further clarity on the Multi-Criteria Assessment in particular the importance of the environment including heritage, biodiversity, ecosystems, recreation and tourism biodiversity on the options. Further detail was requested on the following:

- How other options including nature-based solutions were assessed at the options stage and how they were weighted.
- How each option can affect other areas within the Zone of Influence of all of the proposals, including important biodiversity areas, and habitats and species that lie outside of the footprint of each option but which are potentially impacted by them.
- The Constraints Reports.

DLRCC highlighted that the Appropriate Assessment process is specifically for European sites. However, there are also habitats and species that occur in the Zone of Influence of the proposals of ECRIPP that are protected and/or important at international, national, county and local level and require consideration as part of the options process.

Birdwatch Ireland highlighted the long-term negative impacts works would have on the biodiversity of the habitats in the areas surrounding the works in each CCA. They noted that some bird species along the Merrion to

Dún Laoghaire Section are not referenced in the Constraints Report. They raised concerns about the design images referencing boulders on the beach that could mean a breach of the Conservation Objectives.

Birdwatch Ireland detailed Site-Specific Conservation Objectives are currently being developed for SPAs in Ireland by the National Parks and Wildlife Service. They noted it as critical that sufficient attention and the precautionary principles are used to ensure that any proposed works will not have a significant adverse effect on all the species at the North Wicklow Coastal marshes and in the SPAs up the coast. They requested Irish Rail adheres fully to the Birds Directive and Habitats Directive as well as the Water Framework Directive and Nature Restoration Law to ensure no significant impact to the hydrology of the Wicklow and Dublin coastal wetlands.

Birdwatch requested an assessment to address the risk of changed hydrology and movement of energy which could result in the loss of breeding sites and any potential loss of habitats must be suitably mitigated for.

They raised concerns about wider hydrological changes and impacts to the wetland habitats at the reserves and all along the coast from Dublin to Wicklow.

Birdwatch Ireland highlighted construction work to deliver ECRIPP will be hugely disruptive to any birds nesting so any works must be done after the breeding season. They cited the impact to the little tern colony in the Greystones to Newcastle Section, in particular the proposed plan to introduce rock revetment.

The National Monuments Service of the DHLGH provided high level observations to assist Irish Rail in meeting its obligations in relation to nature conservation, European sites, biodiversity and environmental protection in the preparation of the ECRIPP. They clarified requirements for the Appropriate Assessment and Environmental Impact Assessment. They brought particular attention to the National Biodiversity Plan, alien invasive species and the 'do nothing' scenarios in the EIAR.

A respondent cited the Water Framework Directive Objectives and noted relevant conservation objectives for water-dependent habitats/species, and biodiversity outcomes must be considered.

4.10.7 Population and Human Health

Several submissions referenced the negative impact the proposed works would have on the amenity value of beaches, walks and marine areas along the stretch of coastline under consideration.

A submission commented that some of the more progressive and innovative options presented in the Options Selections Report that better enhanced community outcomes should be prioritised as part of the options assessment.

A stakeholder cited the opportunity to integrate Dublin Bay into the fabric of the community and enhance people's interaction while capitalising on a public transport system unique to Dublin.

A respondent highlighted that appropriate value should be attributed to community and environmental outcomes in the multi-criteria analyses with regard to the social uses of the proposed project sites for leisure, dog walking, swimming and surfing.

The Irish Cycling Campaign welcomed these proposed schemes for the protection of the railway infrastructure between Dublin and Wicklow into the future.

4.11 Public Realm

Several submissions raised concerns about the knock-on effect for commuters and frequent travellers if the railway line isn't protected long term or impacted due to engineering works for extended periods of time.

WCC requested clarity if the existing access points and walkways adjacent to the rail track, that are currently utilised by the public, could be highlighted and the impact of the proposed scheme on these amenities.

DLRCC noted the impact the proposed works would have on the public realm and the project needs to identify opportunities for proposals that both performs the engineering function but also delivers an improved public

realm. Several respondents highlighted existing walking and cycling tracks along the coastline near the rail line and suggested the provision for more should form part of ECRIPP.

DLRCC highlighted the existing policy to provide for pedestrian and cyclists along the coastline and its impact on the ECRIPP. They cited the GDA Cycle Network Plan (2022), the NTA's Transport Strategy for the GDA 2022-2042, DLR County Development Plan 2022/2028, DLR Cycling Policy and Climate Change Action Plan 2019-2024.

4.12 Design

Several submissions suggested realignment of the railway line inland to allow for twin tracks to improve services and frequency. Some submissions raised concerns that the predicted sea level rise is so great that such protection works may not be adequate.

Submissions suggested beach nourishment and groynes be included as part of the design for all affected beaches along the route.

Respondents noted the need to integrate the schemes more fully with the existing heritage and landscape features in particular the historic, architectural, and industrial archaeological significance of the existing stone structures and of the characteristics and sensitivity of the existing coastal landscapes that are impacted by the proposed works. Many suggested ECRIPP undertake a new assessment of options and a new multi-criteria analysis in light of this.

An Taisce requested that natural geotextile materials would be preferable to plastic in any rock armour used, in particular for marine biodiversity and to reduce pollution. They also suggested careful consideration of materials used for historic seawalls to ensure the built heritage of these structures is maintained.

Several stakeholders referenced the Bray to Greystones Cliff Walk and requested that works to restore this amenity be part of ECRIPP. Two submissions suggested boring/tunnelling through Bray Head to bring the railway line further in from the cliff face.

Bray Head Residents' Association highlighted Naylor's Cove has important amenity value which needs to be protected and enhanced. They noted the extent of any revetments here, and size of rock used, should be minimised, and the remains of the historic swimming baths and buildings here should not be interfered with. They also highlighted that landslip and rockfall is a continuing threat to the operation of the railway line and should be mitigated against as part of the design.

The Residents' Association noted that the layout of Naylor's Cove is very similar to the proposed rock headlands on Greystones North Beach. They stated that between the proposed rock headlands on Greystones North Beach, further recession of the cliff will lead to the formation of small bays which will achieve equilibrium in time, preventing further cliff erosion. They highlighted that Naylor's Cove is a naturally formed bay between two very substantial cliff headlands and there is no sign of wave erosion of the cliffs or grassy slopes to the rear of the cove. They further commented that if revetments are to be placed along the whole of Naylor's Cove to achieve equilibrium, further clarity is needed as to why a naturally formed bay between headlands needs these works while the less substantial headlands to be installed on Greystones North Beach will be sufficient to achieve equilibrium on soft cliffs that are subject to active erosion by the sea currently.

WCC commented that the two rock headlands proposed for Greystones North Beach do not solve coastal erosion between the proposed headlands and the existing rock revetments of Greystones North Beach. WCC noted the proposed gap between the rock headlands and Greystones would be over 1km. They commented the proposed rock headlands could increase the level of erosion between the proposed headlands and the existing

rock revetments. They further commented cliff recession would most likely increase in this area due to wave energy.

WCC commented that the effects of surface water on the existing cliff faces of the North Beach should be considered.

They noted the location of a walkway between the rock headlands and cliff face could create a safety issue due to collapse of cliff face and wave overtopping.

WCC stated their preference that a design be considered to protect the amenity value of Greystones North Beach and if possible, reduce wave energy. They commented that rock revetments will increase the energy of the waves and create a greater level of impact in other coastal areas and the county's amenity assets.

They further suggested a more detailed cross section and more design detail would be better for public consultation as it would help highlight the scale of the project being proposed.

Several respondents referenced drainage and surface run off issues around CCA5 as contributing to erosion of the coastline. They suggested such issues should be incorporated into the design.

4.13 Out of Scope

Respondents requested more frequent services on the DART line and improvements to timetables and better services to Glenageary, Greystones and in particular Wicklow town.

Submissions referred to anti-social behaviour along the DART line and graffiti.

It was suggested several times to consider a new twin track further inland. Other suggestions included a land reclamation project, and a scheme to waterproof Bray tunnel.

Several respondents requested the Sutton to Sandycove scheme be incorporated into ECRIPP.

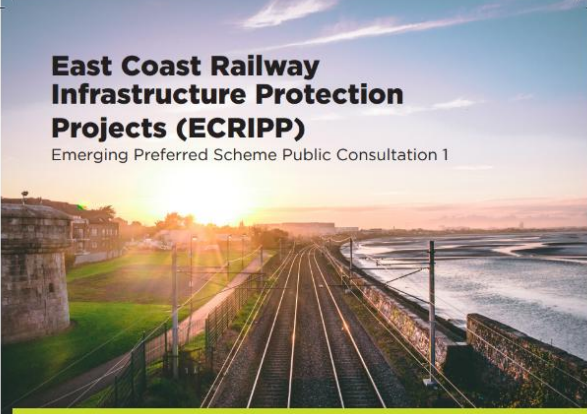
Beach erosion was noted as an issue along the majority of the east coast, and it was suggested it would be prudent to nourish all affected beaches with stones or heavy-duty shingle to reduce the impact of tide pull.

4.14 Next Steps

Following PC1, further studies, assessments, design development and review of all received feedback, the Preferred Scheme for CCA5 will be refined and presented for Public Consultation 2 later in 2025.

Appendix A Leaflet

Appendix A – ECRIPP Flyer



East Coast Railway Infrastructure Protection Projects (ECRIPP)


Emerging Preferred Scheme Public Consultation 1

Introduction to ECRIPP

In recent years, Iarnród Éireann Irish Rail has seen an increase in the frequency of storm events as a result of climate change. Coastal erosion has resulted in large losses of land and habitats, and incursions to such levels that the railway service at specific locations between Dublin and Wicklow is vulnerable to disruption. Our current defenses are sub-standard to deal with the effects of sea level rise and climate change projections and action is required to provide resilience to the rail line.

The East Coast Railway Infrastructure Protection Projects (ECRIPP) was established to deliver the necessary enhanced coastal protection to the existing railway infrastructure at five key locations on this rail network.

These key locations, termed Coastal Cell Area (CCA), are particularly vulnerable to the impacts of coastal erosion, wave overtopping and cliff instability that is expected to increase both in frequency and severity in future years.



Emerging Preferred Scheme Outline

CCA1 MERRION TO DÚN LAOGHAIRE

CCA1 is the section of coast that stretches from Merrion to Dún Laoghaire Harbour. This frontage is mainly urban with the railway corridor running along the coastline. Coastal protection measures currently in place mostly include natural stone revetments and seawalls.

The railway is relatively low-lying along this frontage and the main hazards along this frontage are: wave overtopping leading to flooding and damage to the railway; wave attack leading to failures of the coastal defences and beach erosion/ foreshore lowering leading to undermining of defences and increased wave energy at the shoreline.

The Emerging Preferred Scheme to be taken forward consists of raised walls across the majority of the cell area. At Seapoint and Blackrock amenity frontages raised walls will be integrated with raised walkways to retain the amenity provision. The top advantages identified with the Emerging Preferred Scheme are:

- Low maintenance burden over its lifetime
- Reduced direct impacts on archaeology, cultural heritage in comparison to other options
- Reduced environmental impact on important intertidal and reef habitats.
- Retains the amenity function and shoreline character at Blackrock and Seapoint

CCA2/3 DALKEY TUNNEL TO SHANAGH BRAY WASTEWATER TREATMENT PLANT

CCA2/3 is the section of the coast that stretches from Dalkey Tunnel to just south of Killiney Martello Tower (near Shanaganagh-Bray Wastewater Treatment Plant). This frontage is mainly non-urban with natural cliffs and intermittent man-made supporting structures.


Where are we now?

The design process and environmental studies for ECRIPP have commenced and we are at a key stage in the project.

Before we proceed any further, we would like your views on the Emerging Preferred Scheme for each of the five Coastal Cell Areas (CCA) being put forward for Public Consultation 1.

What are we consulting on?

Public Consultation 1 is on the Emerging Preferred Scheme for each of the five Coastal Cell Areas **CCA1 to CCA6.2**. The Emerging Preferred Scheme is the option that will be constructed under ECRIPP to provide the necessary coastal protection works to actively manage risk to railway operations from the coastal hazards. Further works will be needed in the future to continue to protect the railway line in line with realised climate change impacts. Public Consultation 1 seeks feedback on the Emerging Preferred Scheme, to advance the design through to Public Consultation 2.



The main hazards along this frontage are coastal erosion of the beach and cliffs resulting in shoreline recession, the undermining of existing coastal defences and cliff instability.

The Emerging Preferred Scheme to be taken forward is rock revetments and raised walls. The top advantages identified with the Emerging Preferred Scheme are:

- Non-complex and comparatively low-cost construction
- Minimal maintenance burden and expenditure
- Robust solution
- Low material consumption and waste
- Preferable option for carbon management
- Low impact on noise, vibration and air quality

CCA5 BRAY HEAD TO GREYSTONES NORTH BEACH

CCA5 is the section of coast that stretches from Bray Head at Naylor's Cove to Greystones North Beach; north of Greystones Harbour. This frontage is mainly rural, with train line running elevated along the coastline in and out of tunnels. The main hazards along this frontage are wave attack leading to structural failures of the existing coastal defences and cliff instability at Bray Head and beach/cliff recession and cliff instability at Greystones North Beach.

The Emerging Preferred Scheme to be taken forward to public consultation is rock revetments at Bray Head and rock headlands with managed cliff recession at Greystones North Beach.

The top advantages identified with the Emerging Preferred Scheme are:

- Comparatively low cost and maintenance burden
- Smaller footprint
- Low material consumption and waste

- Preferable option for carbon management
- Allows natural processes to continue between the headlands

CCA6.1 GREYSTONES SOUTH TO NEWCASTLE

CCA6.1 is the section of coast that stretches from Greystones South to Newcastle. At this frontage the trainline runs along a natural embankment at the back of the beach. Coastal protection measures currently in place comprise long sections of rock revetment. The railway is very low-lying and the main hazards along this frontage are: wave overtopping and steepening and narrowing of the beach leading to shoreline erosion and undermining of the existing defences.

The Emerging Preferred Scheme to be taken forward to public consultation is a combination of rock revetment, concrete revetments and wave walls. The top advantages identified with the Emerging Preferred Scheme are:

- Non-complex and comparatively low-cost construction
- Minimal maintenance burden and expenditure

CCA6.2 NEWCASTLE TO WICKLOW

CCA6.2 is the section of coast that stretches from the south of Newcastle down to Wicklow. At this frontage the trainline runs along a natural embankment at the back of the beach.

Coastal protection measures currently in place include rock and concrete revetments along some sections of this frontage, with the majority of the area undefended from coastal erosion.

The railway is very low-lying along this frontage and the main hazards along this frontage are: wave overtopping and steepening and narrowing of the beach which leading to shoreline erosion and undermining of the existing rock structures.

The Emerging Preferred Scheme to be taken forward to public consultation is rock revetments and wave walls. The top advantages identified with the Emerging Preferred Scheme are:

- Non-complex and comparatively low-cost construction
- Minimal maintenance burden and expenditure

How to Engage

The project team would like to hear your views on the Emerging Preferred Scheme for each of the five Coastal Cell Areas to inform us in the development of the project.

Your local knowledge will inform the emerging design, help us to improve it and ensure that it will be beneficial to the communities we serve. It will also ensure that we preserve our railway infrastructure for generations to come. The consultation period is now open, full details including closing dates for receipt of submissions are available on the project website.

Three in-person events will take place as part of the consultation. For details on venues, time and locations please visit the project website.



Please contact us via the following means:



SCAN FOR WEBSITE AND FEEDBACK FORM

Website: <https://www.irishrail.ie/en-ie/about-us/iarnodeireann-projects-and-investments/ECRIPP#overview>

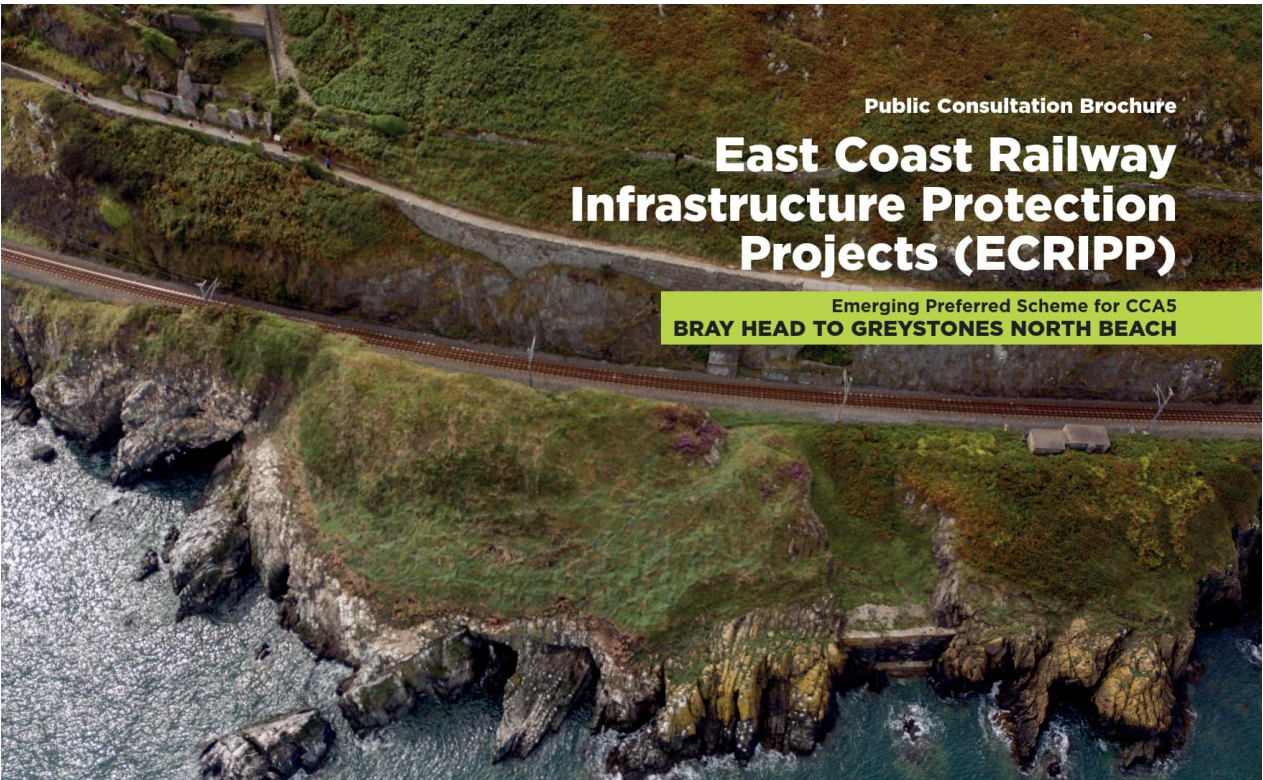
Email: ecrippenquiries@irishrail.ie

Phone line: 01 202 7900

Postal Address:

ECRIPP, Engineering & New Works Building, Iarnród Éireann, Inchicore Works, Dublin 8, D08 K6Y3

Appendix B Brochure



Rialtas
na hÉireann
Government
of Ireland

Tionscadal Éireann
Project Ireland
2040



Jacobs



Contents

01 Introduction to East Coast Railway Infrastructure Protection Projects	2
Why are Coastal Protection Measures Required?	2
Coastal Cell Areas	4
Objectives of the East Coast Railway Infrastructure Protection Projects	5
02 Public Consultation Process	6
03 Current Design Status	7
04 Key Inputs of ECRIPP	9
05 Selection Process	10
Development of Options	10
Stage 1	10
Stage 2	10
06 What are we consulting on now?	12
CCA5 Bray Head to Greystones North Beach	12
07 Next Steps	19
Further Design Development & Option Selection	19
08 How to Engage	21

01 Introduction to the East Coast Railway Infrastructure Protection Projects

The East Coast Railway Infrastructure Protection Projects (ECRIPP) were established to provide improved coastal protection against predicted climate change effects of sea level rise and coastal erosion on the east coast railway corridor between Merrion Gates (Co. Dublin) and Wicklow Harbour (Co Wicklow).

In recent years Iarnród Éireann Irish Rail has seen an increase in the frequency of storm events as a result of climate change. This necessitates more and more maintenance works to be carried out to respond to the effects of coastal erosion, wave overtopping and coastal flooding on the east coast rail line and supporting infrastructure. These works result in increasing disruption to existing services.

The Dublin to Wicklow section of the East Coast Railway is a critical part of the Iarnród Éireann rail network, with southside DART, Gorey commuter and Rosslare Europort Intercity services operating along this scenic route. ECRIPP will deliver the necessary enhanced coastal protection to the existing railway infrastructure in a number of key locations on this rail network.

Why are Coastal Protection Measures Required?

Iarnród Éireann has first-hand experience of the impacts of climate change on railway infrastructure on the east coast. Some areas of the east coast rail line have seen encroachment through the loss of coast of up to 20-30 metres in the last 10 years alone.

This has resulted in large losses of land, and incursions to such levels that the railway line between Dublin and Wicklow is vulnerable to further loss due to coastal erosion. This rate of loss will increase in line with climate change as storm frequency and intensity increases due to climate change.

These key sections, termed Coastal Cell Areas (CCA), of the coastal railway south of Dublin to Wicklow are particularly vulnerable to the impacts of coastal erosion, coastal flooding, wave overtopping and cliff instability. All of which are expected to increase both in frequency and severity in future years. These five Coastal Cell Areas make up ECRIPP.

Each CCA is a standalone project as part of ECRIPP to address coastal erosion on the east coast railway corridor. Each CCA will be taken forward as a separate planning application submission and the programme for delivery may vary between the CCAs.

ECRIPP is funded by the Department of Transport, through the National Transport Authority under Project Ireland 2040 and is provided for in the Programme for Government and the National Development Plan.

In recent years Iarnród Éireann Irish Rail has seen an increase in the frequency of storm events as a result of climate change. This necessitates more and more maintenance works to be carried out to respond to the effects of coastal erosion, wave overtopping and coastal flooding on the rail line and supporting infrastructure.

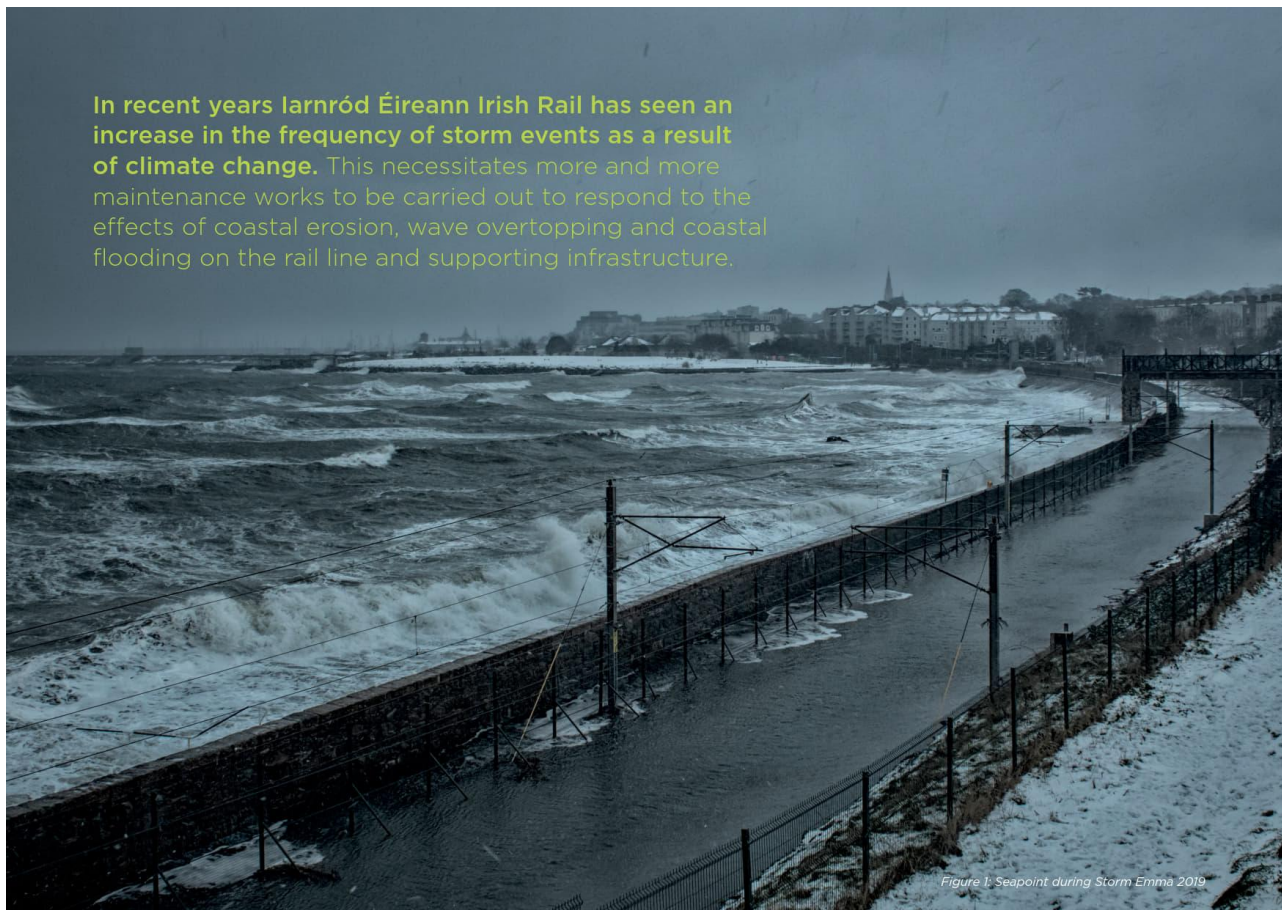


Figure 1: Seapoint during Storm Emma 2019



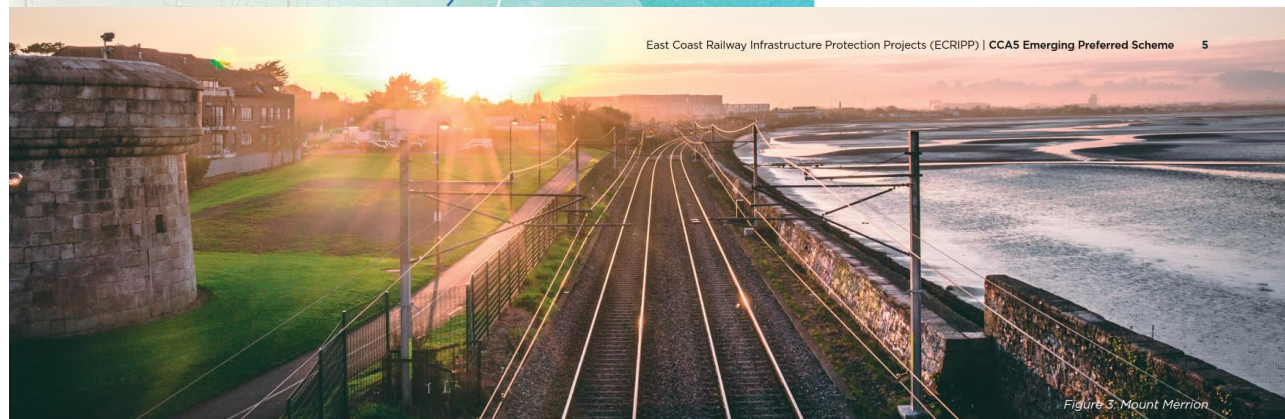
Five key locations, termed Coastal Cell Areas along a 65km route have been identified and assessed as particularly exposed to coastal erosion and climate change effects.

Coastal Cell Areas

The locations of the five Coastal Cell Areas (CCAs) are:

- CCA1** Merrion to Dún Laoghaire
- CCA2/3** Dalkey Tunnel to Shanganagh-Bray Wastewater Treatment Plant
- CCA5** Bray Head to Greystones North Beach
- CCA6.1** Greystones South to Newcastle
- CCA6.2** Newcastle to Wicklow Harbour

During Public Consultation 1 we will present the Emerging Preferred Scheme (EPS) for each of these Coastal Cell Areas for review and feedback.



Objectives of the East Coast Railway Infrastructure Protection Projects

The objectives of the projects are:

- Support the continued safe operation of rail services.
- Increase railway infrastructure resilience to climate change.
- Provide improved and sustainable coastal protection works against predicted climate change effects such as sea level rise, coastal erosion and storm surges on the east coast railway corridor.
- Secure the railway line for future generations.

- Allow for the long-term efficient management and maintenance of the railway corridor.
- Support sustainable low carbon local, regional, and international connectivity fostering a low carbon and climate resilient society.

Benefits of the East Coast Railway Infrastructure Protection Projects

Iarnród Éireann's role as a sustainable national transport system is recognised in the publication of the All-Island Strategic Rail Review commissioned by the Governments of Ireland/Northern Ireland which proposes a very significant increase in capacity of our existing infrastructure and future expansion of the rail network across the island. ECRIPP will aid Irish Rail's increased capacity and expansion ambitions by supporting the development of the DART+ Programme and other improvements to the rail network on the east coast of Ireland.

02 Public Consultation Process

This process is a key element in the delivery of the East Coast Railway Infrastructure Protection Projects.

This project has two non-statutory public consultation periods planned. The first public consultation on ECRIPP is on the Emerging Preferred Scheme for each of the five Coastal Cell Areas CCA1 to CCA6.2 and seeks feedback to advance the design through to Public Consultation 2, where we will present the Preferred Scheme for each of the five Coastal Cell Areas CCA1 to CCA6.2. Feedback is now requested on the Emerging Preferred Scheme for each of the five Coastal Cell Areas.

Public consultations are our way of asking you, as potential users of the services or those likely to be affected by its development, for your views on our plans, whilst the design process is active. Your local knowledge and comments will further inform the design of the proposed protection measures and help it be a success for you and the communities it will serve.

Public feedback will be accepted during all stages of the design development and can be submitted through the project website, e-mail address, phone line or by written correspondence. For further details see the 'How to Engage' section.

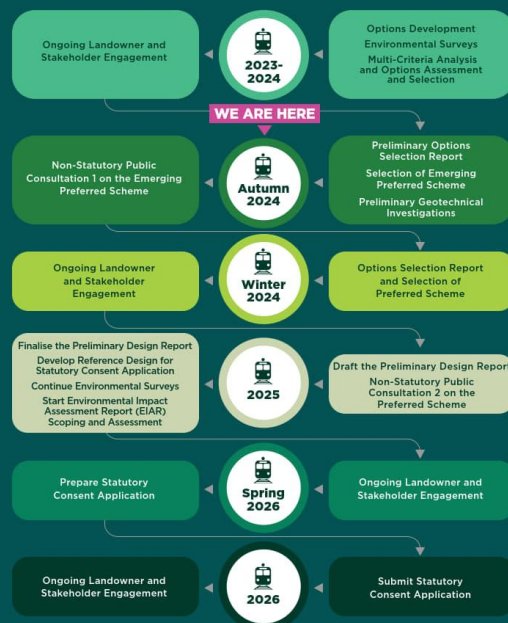


Figure 4: Consultation Roadmap

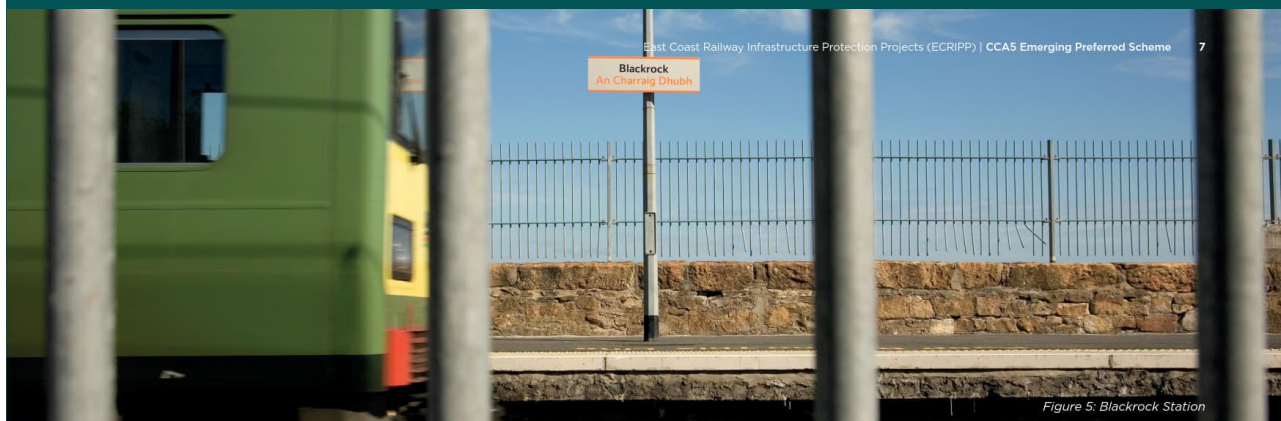


Figure 5: Blackrock Station

03 Current Design Status

This brochure explains the current design status of ECRIPP, its benefits, potential impacts, and how you can send us your queries, thoughts and ideas.

The design process and environmental studies for ECRIPP have commenced, and we are at a key stage in the project.

Your participation and feedback is encouraged and we are interested in gaining your feedback and comments at this stage in the design process.

Before we proceed any further, we would like your views on the Emerging Preferred Scheme for each of the five Coastal Cell Areas being put forward for Public Consultation 1. Based on the optioneering process presented in the Preliminary Option Selection Reports, the Emerging Preferred Scheme is our identified preferred technical approach to managing coastal erosion and wave overtopping risks to railway operations.

We are at a very early stage of design and studies are still ongoing to confirm the approach and develop the site-specific design aspects. These studies will be progressed with your local knowledge and will inform the design and help us to improve the project.

Following these further studies, assessments, design development, consultation and our review of your feedback, the Emerging Preferred Scheme for each coastal cell area will be refined. The Preferred Scheme will then be presented at Public Consultation 2, due to take place in 2025.

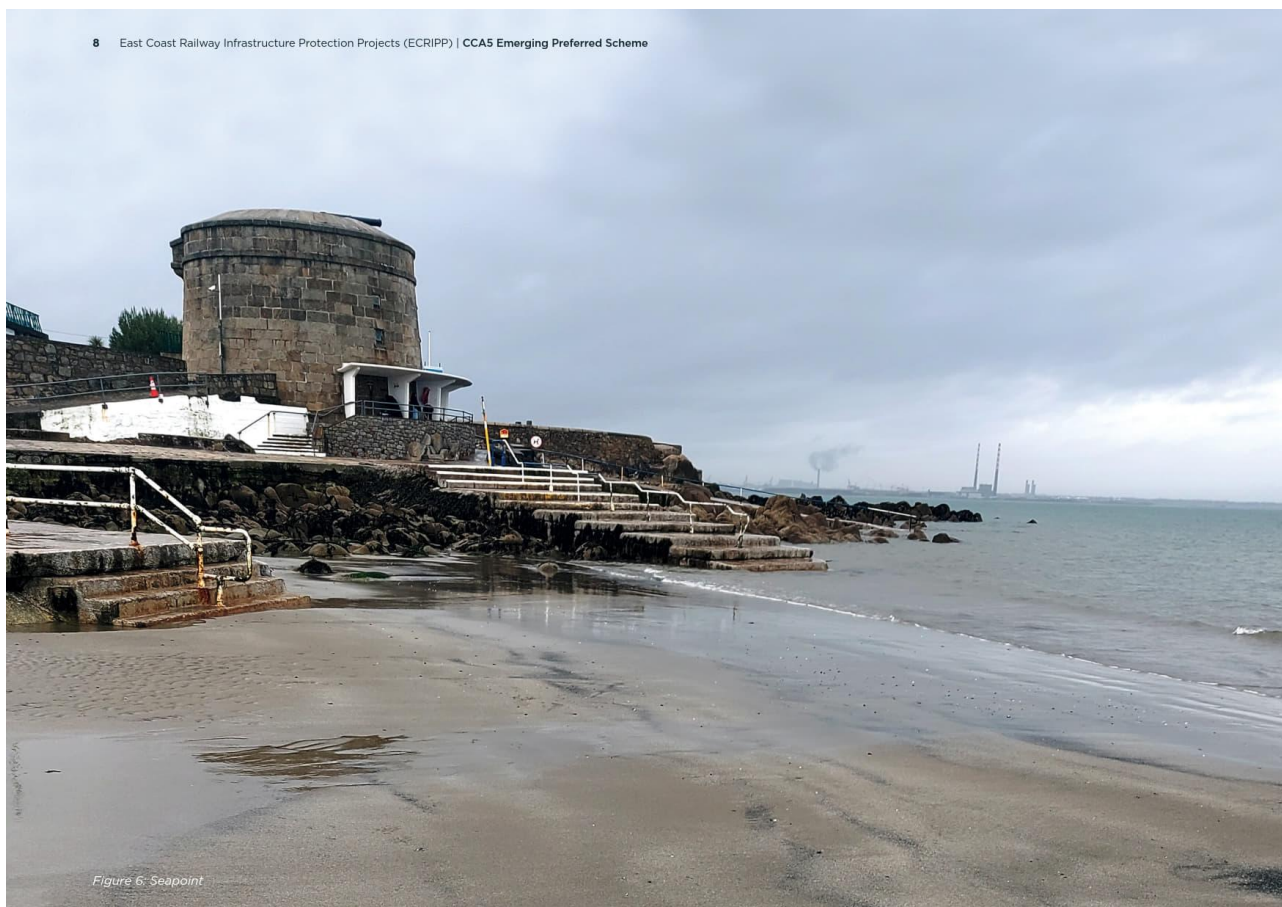


Figure 6: Seapoint

05 Selection Process

To assist the design development process and to determine the Emerging Preferred Scheme for each of the five Coastal Cell Areas, a structured engineering process has been followed.

The option selection process is detailed in the Preliminary Option Selection Report for each CCA, which are available through the website or contact methods outlined at the back of this document.

Development of Options

Options that were developed for the individual Coastal Cell Areas include but are not limited to:

- Concrete Seawall fronted by Rock Toe.
- Rock Revetment with Wall Raising.
- Breakwaters with Beach Nourishment.
- Groynes with Beach Nourishment.

STAGE 1

Preliminary Assessment consists of the assessment of a long list of options against engineering, economic, and environmental criteria to evaluate the 'feasibility' of each option to meet the project objectives and requirements.

This approach allowed for the long list of options to be filtered to a shorter list of feasible options. All feasible options were brought forward to Stage 2 where they could be explored in greater detail.

STAGE 2

The Multi-Criteria Analysis process consists of a more detailed multi-disciplinary comparative analysis of the feasible options that passed through Stage 1.

The feasible options were assessed against seven appraisal criteria, namely: economy, safety, environment, accessibility and social inclusion, integration, engineering/technical and planning risk.

Options were then compared to each other based on whether an option had 'some' or 'significant' advantage or disadvantage over other options or whether all options were 'comparable/neutral'.

Following the identification of the technical approach to managing coastal erosion and wave overtopping risk to the railway, an second prioritisation assessment was undertaken to assess what works should be delivered under ECRIIPP, and which works could safely be deferred to provide longer term coastal protection as climate change impacts are realised. A second MCA (against the same criteria) was undertaken on the priority works to be delivered under ECRIIPP to identify the Emerging Preferred Scheme.

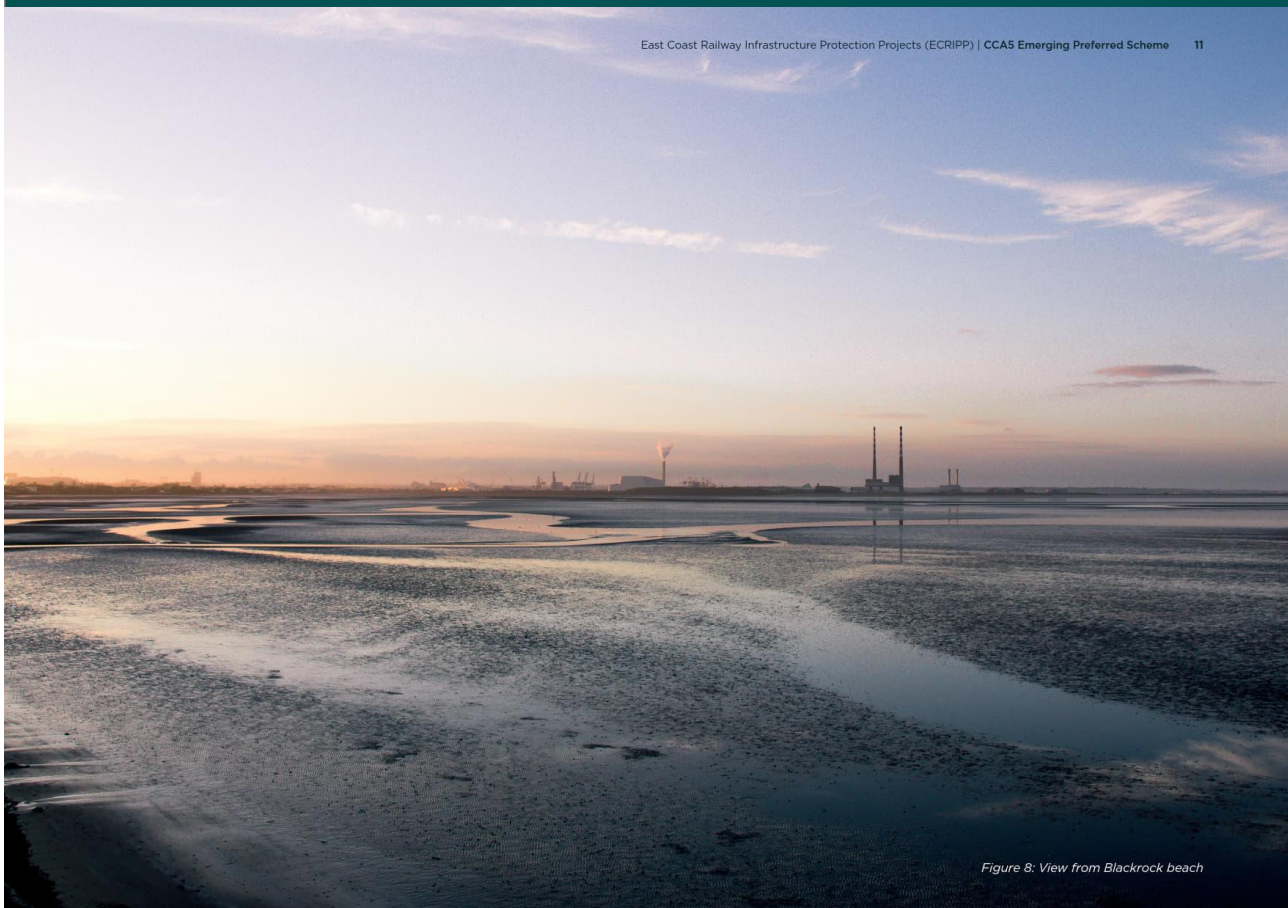
The MCA was developed cognisant of the Common Appraisal Framework and the recently published Infrastructure Guidelines.



04 Key Inputs of ECRIPP

The concept designs for each of the options considered the following:

- Wave climate and extreme water level data has been extracted from hydrodynamic modelling work undertaken during preliminary investigations for ECRIPP.
- Initial rock stability calculations have been undertaken to identify the required rock size to ensure long term stability of the rock armour.
- An assessment of wave overtopping rates during storm events has been undertaken. This includes an allowance for sea level rise. This analysis informs the required geometry of the improved defences to provide the required Standard of Protection (0.5% Annual Exceedance Probability, also known as a 1 in 200-year storm protection level).
- The condition of the existing coastal defences has been informed by condition survey.
- Defence type and material selection have been selected to provide a long design life and to minimise future maintenance requirements.
- Constructability and technical viability have been considered in the design to ensure the options are feasible.
- Within the bounds of each option form, the impact on the environment and community have been considered at a high level through multicriteria assessment (MCA).



06 What are we consulting on now?

For Public Consultation 1, we will showcase the options selection process and the methodology followed to identify the Emerging Preferred Scheme for each of the five Coastal Cell Areas.

As part of the public consultation process, the public are invited to make observations and submissions on the Emerging Preferred Scheme.

Full details of each Emerging Preferred Scheme, including maps, drawings and the Preliminary Options Selection Reports are available to view and download on the project website: www.irishrail.ie/en-ie/about-us/iarnrod-eireann-projects-and-investments/ecripp.

CCA 5 Bray Head and Greystones North Beach

CCA5 is the section of coast that stretches from Bray Head at Naylor's Cove to Greystones North Beach; north of Greystones Harbour. This frontage is mainly rural, with the train line running along the coastline in and out of tunnels.

The main hazards along this frontage are;

- Coastal erosion of beach and foreshore undermining cliffs and existing coastal defences.
- Cliff instability from wave overtopping.
- Rock falls and landslips.

Objectives for CCA5

1. To allow for the long-term efficient management and maintenance of the railway corridor.
2. To support the continued safe operation of rail services.
3. To support sustainable low carbon local, regional and international connectivity that will enable the transition to a low carbon, and climate resilient society, supporting a fair society with the highest quality of life possible.
4. To design and construct the proposed infrastructural protection measures to minimise environmental effects during the construction and operational phases, insofar as is practicable enhance the receiving environment.
5. To design and construct the proposed infrastructural protection measures in line with local regional and national policies and legislation relating to sustainability circular economy and carbon.



The Emerging Preferred Scheme – CCA5 Bray Head to Greystones North Beach

The Emerging Preferred Scheme to be taken forward to public consultation is rock revetments (at Bray Head) and rock headlands with managed cliff recession (at Greystones North Beach).

The top advantages identified with the EPS are:

- Low cost and maintenance burden.
- Smaller footprint.
- Maintains access for amenity.
- Low material consumption and waste.
- Preferable option for carbon management.
- Allows natural processes to continue between the headlands.

Rock Revetments at Bray Head

- The railway line runs along the cliff at CCA5 and is supported from below and protected by various masonry and rock structures. Rock revetments will be placed in front of some of the existing exposed coastal structures. The rock revetments will prevent the loss of the foreshore whilst also dissipating wave energy and reducing wave impact on the existing coastal structures.
- The rock revetments will comprise a minimum of two layers of natural rock boulders. The rock size has been selected to provide stability and allow for climate change. This rock will be of high quality to ensure that it has a long lifespan.

Rock Headlands at Greystones North Beach

- The rock headlands will be constructed on the beach at the toe of the soft cliffs. The northern headland will be approximately 180m long whilst the southern headland will be approximately 300m long with approximately 250m between the two headlands. All dimensions are to be confirmed during design development. The rock headlands will comprise a minimum of two layers of natural rock boulders. The rock size has been selected to provide stability and allow for climate change.

- The rock headlands will protect the toe of the cliff and stabilise the upper cliff system at these locations. Between these rock headlands, there will be further limited recession of the cliff until a stable bay is formed.

Walkways and Access

- The ends of the rock headlands will turn seawards to improve the stability of the bays between the headlands. Access seaward of these structures will be tidally limited, hence additional alongshore beach access is provided landward of these structures at the toe of the existing cliffs. Natural pathways will be provided.

Construction

Through the design process we will identify and develop construction methodologies, haul routes, construction compounds and landing locations for the contractor and materials to construct the project. Further details on construction methodologies will be developed in the coming months and will be presented at Public Consultation 2. This information will be developed to inform the EIAR that will support the Planning Application for the project.



Figure 10: Wicklow Railway Line

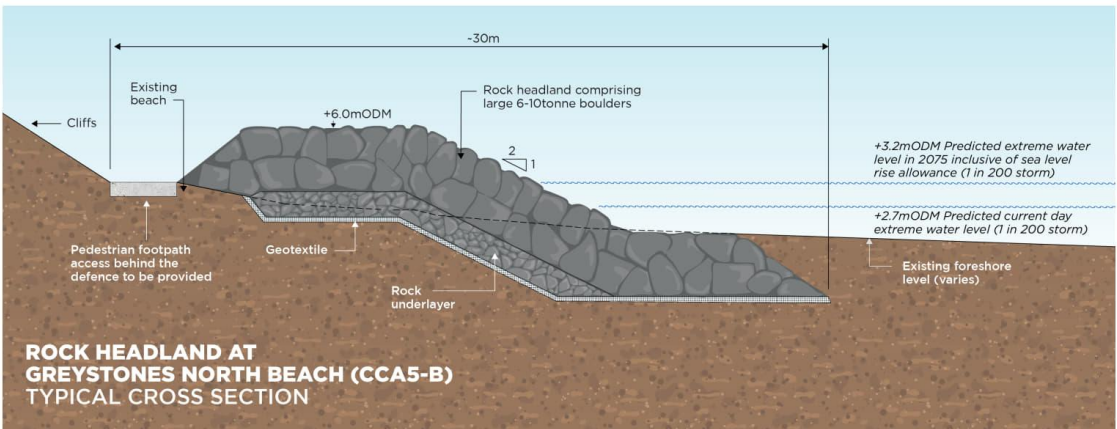




Figure 13: South of Kilcoole Station

07 Next Steps

Further Design Development & Option Selection

The option selection process and design development that has been undertaken to date has led to the development of the Emerging Preferred Scheme for each coastal cell area that is the focus of this public consultation stage.

Once the Public Consultation 1 process is complete, all feedback and submissions received will be reviewed and assessed as part of the finalisation of the Preferred Scheme for Public Consultation 2.

Following a full appraisal of the feedback, a Consultation Findings Report on Public Consultation 1 will be prepared and published to document this process.

All information gathered by the Project Team will be used to inform the design development of the project which will be the subject of the Environmental Impact Assessment (EIA) and Appropriate Assessment (AA) as part of the planning application.

Public feedback will be accepted during all stages of the design development and can be submitted through the project website, e-mail address, phonenumber or by written correspondence.



08 How to Engage

The project team would like to hear your views on ECRIPP Emerging Preferred Scheme for each of the Coastal Cell Areas. This consultation is our way of asking you, as potential users of the service or those likely to be affected by the development of coastal protection measures, for your views on our plans.

Your local knowledge will inform the design development, help us to improve it and ensure that it will be beneficial to the communities we serve and those who pass through. It will also ensure that we preserve our railway infrastructure for generations to come.

The consultation period is now open, full details including closing dates for receipt of submissions are available on the project website.

Please contact us via the following means:



Website: <https://www.irishrail.ie/en-ie/aboutus/iarnrod-eireann-projects-and-investments/ECRIPP#overview>

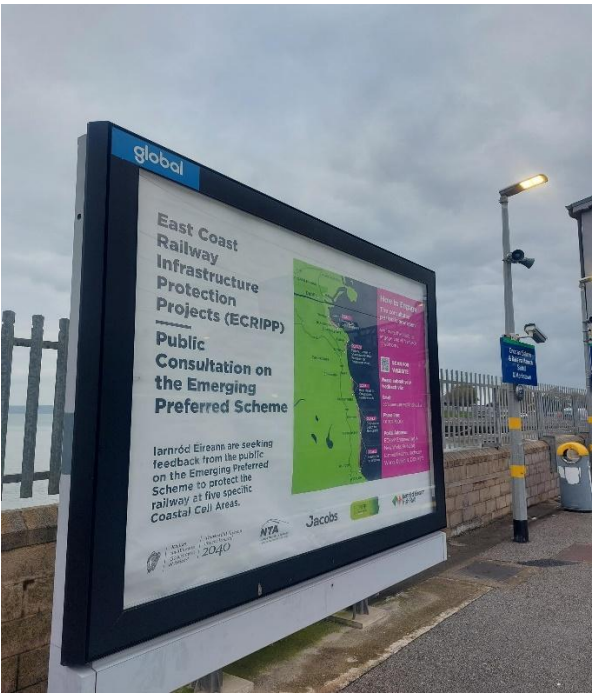
Email: ecrippenquiries@irishrail.ie

Phone line: 01 202 7900

Postal Address: If you would prefer to write to us, please send correspondence to:

ECRIPP,
Engineering & New Works Building,
Iarnród Éireann,
Inchicore Works,
Dublin 8,
D08 K6Y3

Appendix C Consultation posters on display



Appendix D Press release

04 Nov 2024

News Release: Public consultation on major climate resilience programme for Eastern Coast Rail Line to begin

Iarnród Éireann News Release

4th November, 2024

Public Consultation on major climate resilience programme for Eastern coast rail line to begin

East Coast Railway Infrastructure Protection Projects will future proof the eastern seaboard rail corridor

Iarnród Éireann's major climate resilience programme to protect major sections of the Dublin to Rosslare rail line from the effects of climate change is about to begin. Non-Statutory Public Consultation begins on Wednesday 6th November on the emerging preferred option for the East Coast Railway Infrastructure Protection Projects (ECRIPP) and runs until 4th December. The projects have been developed to provide improved coastal protection against current and predicted climate change effects of sea level rise and coastal erosion on the east coast railway corridor between Merrion Gates in Co Dublin and Wicklow Harbour. Iarnród Éireann wants to hear from those living along the route and who have an interest in the area about the proposed plan as this local knowledge will contribute to the ongoing design of the projects.

The Dublin to Wicklow section of the east coast railway is a critical part of the Iarnród Éireann rail network, with southside DART, Gorey commuter and Rosslare Europort Intercity services operating along this scenic route. ECRIPP will deliver the necessary enhanced coastal protection to the existing railway infrastructure in several key locations on this section of the rail network.

Iarnród Éireann has first-hand experience of the impacts of climate change on railway infrastructure on the east coast. Some areas of the east coast rail line have seen encroachment through the loss of coast of up to 20-30 metres in the last 10 years alone. This has resulted in large losses of land, and incursions to such levels that the railway line between Dublin and Wicklow is vulnerable to further loss due to coastal erosion. This rate of loss will increase in line with climate change, as storm frequency and intensity increases due to climate change. In recent years Iarnród Éireann has seen an increase in the frequency of storm events because of climate change. This necessitates more and more maintenance works to be carried out to respond to the effects of coastal erosion, wave overtopping and coastal flooding on the east coast rail line and supporting infrastructure. The effects of the storm events, and the resulting works, have the potential to see increasing disruption to existing services.

The key sections, termed Coastal Cell Areas (CCA), of the coastal railway south of Dublin to Wicklow are particularly vulnerable to the impacts of coastal erosion, coastal flooding, wave overtopping and cliff instability - all of which are expected to increase both in frequency and severity in future years. These five Coastal Cell Areas make up ECRIPP, and are:

- CCA1: Merrion to Dún Laoghaire
- CCA2-3: Dalkey Tunnel to Shanganagh – Bray Wastewater Treatment Plant
- CCA5: Bray Head to Greystones North Beach
- CCA6.1: Greystones South to Newcastle
- CCA6.2: Newcastle to Wicklow

Each CCA is a standalone project as part of ECRIPP to address coastal erosion on the east coast railway corridor. Under the public consultation, Iarnród Éireann is detailing the emerging preferred option for each CCA to give interested parties the opportunity to comment.

Each CCA will be taken forward as a separate planning application submission and the programme for delivery may vary between the CCAs. ECRIPP is funded by the Department of Transport, through the National Transport Authority under Project Ireland 2040 and is provided for in the Programme for Government and the National Development Plan.

Anne Graham, Chief Executive of the National Transport Authority said: *"The East Coast Infrastructure Protection Projects are a key programme of works designed to protect the railway services along the Southeastern Line from the impact of Climate Change. It's very positive to see the project being progressed to this stage, and I would encourage people to engage in the consultation process."*

Speaking at the commencement of the public consultation, Chief Executive of Iarnród Éireann, Jim Meade said: *"The threat of climate change is real for all of us, but for us in the railway it presents unique challenges, particularly on the eastern coastal route. ECRIPP will provide infrastructure protection works that will futureproof this section of the railway for generations to come, but to provide the best possible solution we want to hear from our neighbours and those that enjoy the coastal amenities along this route and I would urge as many people as possible to give us their feedback"*.

For more information on the project, please visit www.irishrail.ie/ECRIPP

Issued by:
Corporate Communications,
Iarnród Éireann,
Connolly Station,
Dublin 1.

For more information, please contact Jane Cregan 086 8531098

Contact Information
Iarnród Éireann News
ie.news@irishrail.ie

Notes to editors

In person information evenings on the project will take place at the following locations. All are welcome .

- Royal Marine Hotel, Dun Laoaghaire on 19th of November from 15:00hrs to 19:00hrs.
- Mermaid Arts Centre, Bray on 20th November from 15:00hrs to 19:00hrs.
- Spotlight Studios, Wicklow on 21st November from 15:00hrs to 19:00hrs.

Attached route map for the project and cell by cell information

Appendix E Stakeholder Email

From: ECRIPP Enquiries <ecrippenquiries@irishrail.ie>
Sent: 06 November 2024 09:53
Subject: East Coast Railway Infrastructure Protection Projects Public Consultation 1

Dear Stakeholder

The East Coast Railway Infrastructure Protection Projects (ECRIPP) were established to provide improved coastal protection against predicted climate change effects of sea level rise and coastal erosion on the east coast railway corridor between Merrion Gates (Co. Dublin) and Wicklow Harbour (Co Wicklow).

This project has two non-statutory public consultation periods planned. The first public consultation on ECRIPP is on the Emerging Preferred Scheme (EPS) for each of the five Coastal Cell Areas CCA1 to CCA6.2;

CCA1 Merrion to Dún Laoghaire

CCA2/3 Dalkey Tunnel to Shanganagh Bray Wastewater Treatment Plant

CCA5 Bray Head to Greystones North Beach

CCA6.1 Greystones to Newcastle

CCA6.2 Newcastle to Wicklow Harbour

The Emerging Preferred Scheme is the preferred combination of design options that have been identified at this stage of the coastal cell areas project development. As part of this public consultation process, the public are invited to make observations and submissions on the Emerging Preferred Scheme for each of the five Coastal Cell Areas.

The consultation period is now open and will close on the 4th December. All consultation materials are available on the project website <https://www.irishrail.ie/en-ie/about-us/iarnrod-eireann-projects-and-investments/ecripp>

We will hold a series of in-person consultation events as part of the consultation.

In-person event No.1 – Royal Marine Hotel, Dun Laoghaire 19th November, from 3-7pm.

In-person event No.2 – Mermaid Arts Centre, Bray. 20th November, from 3-7pm.

In-person event No.3 – Spotlight Studios, Wicklow town, 21st November, from 3-7pm.

Iarnród Éireann's first priority is to operate and maintain a safe rail network. In recent years, on our east coast, Iarnród Éireann has seen an increase in the frequency of storm events as a result of climate change. This necessitates more and more maintenance works to be carried out to respond to the effects of coastal erosion, wave overtopping, cliff instability and coastal flooding on the rail line and supporting infrastructure.

The Dublin to Wicklow section of the rail line is a critical part of the rail network, with southside DART, Gorey commuter and Rosslare Europort Intercity services operating along this scenic route. It is clear to Iarnród Éireann therefore that a proactive series of projects is required, to mitigate against the effects of climate change. We have identified several key areas along this section where strategic interventions are deemed necessary to ensure existing rail services continue to operate with minimal disruption.

To make a submission or if you have any queries in relation to the above, the ECRIPP Project Team are available by;

Email: ecrippenquiries@irishrail.ie

Phone line: 01 202 7900

Feedback Form: <https://forms.office.com/r/CM9nzpmJDU>

Postal Address: ECRIPP,

Engineering & New Works Building,

Iarnród Éireann, Inchicore Works,

Dublin 8, D08 K6Y3

Kind Regards

ECRIPP Project Team

E: ecrippenquiries@irishrail.ie



Appendix F Public Information Events





Appendix G FAQs

ECRIPP - FAQs

What are the East Coast Railway Infrastructure Protection Projects?

The East Coast Railway Infrastructure Protection Projects (ECRIPP) will deliver enhanced coastal protection to the existing railway infrastructure on the rail network between Dublin and Wicklow. The rail line in sections is vulnerable to coastal erosion, wave overtopping and cliff instability that is expected to increase both in frequency and severity in future years due to climate change effects.

ECRIPP will deliver long term engineering solutions to proactively manage climate change effects in the form of wave overtopping, coastal flooding, erosion, and coastal cliff instability to this important rail infrastructure corridor. ECRIPP will consider how this line can be protected for future generations in the face of predicted climate change impacts.

Why are the projects needed?

The Dublin to Wicklow section of this line is a critical part of the rail network, with southside DART, Gorey commuter and Rosslare Europort intercity services operating along this scenic route.

In recent years, Iarnród Éireann (IE) has seen an increase in the frequency of storm events as result of climate change. This necessitates increased maintenance works to be carried out to respond to the effects of coastal erosion, wave overtopping and coastal flooding on the rail line and supporting infrastructure. These works result in increasing disruption to existing services.

Some areas of the East Coast rail line have seen encroachment through the loss of coast of up to 20-30 metres in the last 10 years alone. This has resulted in large losses in land and habitats, and incursions to such levels that existing infrastructure, in particular the railway line between Dublin and Wicklow, is at real risk of loss to coastal erosion.

The proposed East Coast Railway Infrastructure Protection Projects (ECRIPP) will examine how to protect railway infrastructure at five key locations that run along a 65km route on the east coast. These locations are vulnerable to the impacts of coastal erosion, coastal flooding, wave overtopping and coastal cliff instability that is expected to increase both in frequency and severity in future years as a result of climate change.

The primary focus of these projects is to identify and implement sustainable coastal erosion protection measures to protect the existing railway infrastructure.

ECRIPP enables IE to continue to contribute towards the social and economic development along the east coast railway line. The railway is an important asset to enable a better quality of life and more sustainable travel and Iarnród Éireann will continue to invest in long term strategic infrastructure.

The current east coast rail line is fully operational. ECRIPP will mitigate against coastal erosion, extreme weather, and coastal flooding to ensure rail connectivity is maintained. Iarnród Éireann will continue to undertake maintenance and remedial works in key areas along the east coast rail line.

What are the key objectives of ECRIPP?

The railway is an important asset to enable a better quality of life and more sustainable travel and Iarnród Éireann will continue to invest in long term strategic infrastructure.

- The key objectives of ECRIPP include;
- support the continued safe operation of rail services;
 - increase railway infrastructure resilience to climate change;
 - provide improved and sustainable coastal protection works against predicted climate change effects such as sea level rise, coastal erosion, storm surges and increased rainfall on the east coast railway corridor;
 - secure the railway line for future generations;
 - allow for the long-term efficient management and maintenance of the railway corridor; and
 - support sustainable, low carbon, local, regional and international connectivity fostering a low carbon and climate resilient society.

What are the Coastal Cell Areas?

Five key locations, termed coastal cell areas along a 65 km route have been identified and assessed as being particularly exposed to coastal erosion and climate change effects on exiting rail infrastructure.

The locations of the five coastal cell areas (CCAs) are:

- CCA1- Merrion to Dún Laoghaire
- CCA2-3- Dalkey Tunnel to Shanganagh-Bray Wastewater Treatment Plant
- CCA5- Bray Head to Greystones North Beach
- CCA6.1- Greystones to Newcastle
- CCA6.2- Newcastle to Wicklow Harbour

Why are only these areas being targeted?

Some sections of the coastal railway south of Dublin to Wicklow are more vulnerable than other sections to the impacts of coastal erosion that is expected to increase both in frequency and severity in future years as a result of climate change.

These five coastal cell areas have been assessed as they have experienced recent incursions to such levels that existing railway infrastructure is at risk of coastal erosion due to climate change.

What is happening now?

We are currently in Phase 2 (Concept, Feasibility and Options). During this phase, the project team is working on the development of appropriate measures to best manage the risks to the railway associated with coastal hazards in the five key areas (coastal cell areas). Over the coming months we will be carrying out several surveys to inform the design development. These surveys will cover non-intrusive ecological surveys and bathymetric surveys. We also plan to carry out Ground Investigation to inform the design close to the rail line.

As part of the public consultation process, the public are invited to make observations and submissions on the Emerging Preferred Scheme for each of the five coastal cell areas. Full details of each Emerging Preferred Scheme, including maps, drawings and the Preliminary Options Selection Reports are available to view and download on this project website. Full details of the optioneering process is documented in the Preliminary Options Selection Reports.

An option selections report will then be finalised detailing the identified preferred scheme for each of the five Coastal Cell Areas with further consultation expected here.

What happens next?

Once the public consultation process is complete, all feedback and submissions received will be reviewed and assessed as part of the finalisation of the of the Preferred Scheme for public consultation 2. Further public consultation on the preferred scheme will be undertaken in 2025.

How is the project being funded?

ECRIPP is funded through the Department of Transport by the National Transport Authority, under Project Ireland 2040. Iarnród Éireann is committed to this project and it is provided for in the Programme for Government and the National Development Plan.

How long will it take?

The National Development Plan forecasts a ten-year timeline to complete the project, to manage long term coastal erosion risks to the railway.

Iarnród Éireann is committed to this project to ensure that Ireland protects critical infrastructure into the future, meets its many ambitious long-term national climate change targets; and its commitment to protect and improve public transportation. ECRIPP is provided for in Project Ireland 2040, in the Programme for Government and the National Development Plan. Ultimately all projects are dependent on Exchequer funding for financing. Subject to receipt of planning permission approval and approval of the Business Case by Government, the project will go ahead.

When will there be consultations with the public?

Public participation during the design development process is a key element to the delivery of major infrastructure projects such as ECRIPP. This process allows public feedback to be assessed and used in developing the design with knowledge of all issues.

Information on future public consultations will be updated to the project website www.irishrail.ie/ecripp. All public consultation launches will be highlighted through in-station posters and a leaflet drop along the project route, briefing of elected representatives, email notification to the project database, targeted digital advertising and advertising in print media and on radio where appropriate.

Public Consultation 1	Date	Location	Venue	Time
Consultation Event 1	19th November 2024	Dun Laoghaire	Royal Marine Hotel	15:00-19:00
Consultation Event 2	20th November 2024	Bray	Mermaid Arts Centre	15:00-19:00
Consultation Event 3	21st November 2024	Wicklow Town	Spotlight Studios	15:00-19:00
Consultation Event 4	3rd December 2024	Greystones	Greystones Library	16:00-18:30

How can I get in contact with the project team?

Email: ECRIPPenquiries@irishrail.ie
Post: ECRIPP, Iarnród Éireann Infrastructure, Inchicore Works, Dublin 8, D08 K6Y3
Phone: 01 202 7900

I live near the railway tracks, what will the impact be?

The majority of works will be carried out seaward of the existing rail corridor.

Some survey work will occur on the line. Every effort will be made to avoid, reduce, and/or mitigate negative impacts, however, there is likely to be some disturbance experienced for those in close proximity to the railway line. We will work to ensure that any such disruption is minimised.

We are currently at an early stage in the project's timeline with an assessment of options currently being undertaken. The types of construction work required at each specific location will determine the type of impact that may affect the area/your property. As the projects proceed any potential impact that may occur will be communicated with the public.

Will access to the beach be impacted?

In some areas it is expected that access to the beach and sea will be temporarily affected during the construction phase. Construction is not due to take place until 2028-2030. We are currently at an early stage in the project's timeline with an assessment of options currently being undertaken. As the projects proceed any potential impact that may occur will be communicated with the public.

A dedicated Community Public Liaison Officer will be put in place to communicate details of upcoming works and every potential mitigation will be put in place to minimise the disruption that may occur. To contact the CPLD please email ecrippenquiries@irishrail.ie.

Will there be an impact on heritage structures?

ECRIPP is seeking to deliver enhanced climate resilience to the existing railway infrastructure whilst protecting where possible the existing heritage of the railway. In order to achieve these certain interventions may be required that will impact on specific structures. We are currently at an early stage in the project's timeline with an assessment of options currently being undertaken.

The project team will consider the architectural heritage of all structures in the options assessments and physical interventions to these heritage structures will only be undertaken where absolutely necessary. In most cases works will be confined to the railway line and works will be restricted as much as possible to avoid any potential impact on these structures.

Any heritage interactions will involve input and consultation with the Department of Housing Local Government and Heritage.

How will the local community benefit?

ECRIPP will deliver enhanced coastal protection to the existing railway infrastructure on the rail network between Dublin and Wicklow. Delivery of ECRIPP will support the existing communities along the railway, support future sustainable development and retain the railway for future generations.

Will there be more coastal protection measures delivered as part of the project?

ECRIPP is a railway infrastructure protection project and will focus on the railway corridor specifically and where this is impacted by coastal erosion and climate change effects.

The scope of ECRIPP is to deliver coastal protection measures to protect the railway from further coastal erosion, coastal cliff instability and wave overtopping that is due to increase in frequency and severity as a result of climate change.

Under the National Development Plan, Iarnród Éireann is currently undertaking a range of projects, as well as essential maintenance, right across our lines.

Iarnród Éireann will continue to undertake routine maintenance and remedial works in key areas along the east coast rail line. To view a list of upcoming line improvement works and visit <https://www.irishrail.ie/en-ie/news/irishrail-engineering-works>.

Iarnród Éireann will engage and collaborate with key stakeholders such as the Office of Public Works, Environmental Protection Agency, Local Authorities and relevant Government Departments on wider coastal erosion protection projects along the east coast.

Will access to private land be required?

The majority of works will be carried out within or seaward of the existing rail corridor owned by IÉ. Some access to third party lands will be required in some coastal cell areas.

Where access is required through/on private land, contact will be made with the relevant landowner and permission will be sought for access. Construction phase of the projects are not expected to commence until 2028-2030.

A dedicated Community Public Liaison Officer will be put in place to communicate with any landowners that may be affected. To contact the CPLD please email ecrippenquiries@irishrail.ie.

Does DART+ Coastal South impact on ECRIPP?

DART+ Coastal South is an independent project of ECRIPP. Non Statutory public consultation on DART+ Coastal South will take place this winter. The commencement of construction of ECRIPP, subject to planning being granted and funding being allocated will not impact ECRIPP's progress. For more information on DART+ Coastal South please visit dartplus.ie.

The construction phase for ECRIPP is not expected to commence until 2028- 2030.

When will construction begin on DART+ Coastal South and will it affect ECRIPP?

The DART+ Coastal Projects are currently at an early stage in the project's timeline with an assessment of options currently being undertaken. As the projects proceed, two stages of non-statutory public stakeholder engagement will be conducted prior to the lodgement of the Railway Order applications. More information on DART+ Coastal Projects visit <https://www.dartplus.ie/en-ie/projects/dart-coastal-south>

How do I make a submission?

The project team would like to hear your views on ECRIPP Emerging Preferred Scheme for each of the coastal cell areas. The consultation period is now open, full details including closing dates for receipt of submissions are available on the ECRIPP website.

Website: ECRIPP Public Consultation 1 – Emerging Preferred Scheme
Email: ecrippenquiries@irishrail.ie
Phone line: 01 202 7900

Postal Address: If you would prefer to write to us, please send correspondence to:
ECRIPP,
Engineering and New Works Building,
Iarnród Éireann,
Inchicore Works,
Dublin 8,
D08 K6Y3

Appendix H Feedback Form

Personal Details - Optional

Irish Rail Iarróid Éireann fully respects your right to privacy.

Any personal information which you volunteer will be treated securely and confidentially in accordance with the Data Protection Acts 1988-2018 and the General Data Protection Regulation (GDPR). For more information visit our privacy policy <https://www.irishrail.ie/en-ie/legal/terms-of-use-privacy-statement-cookie-policy>

Your submission remains anonymous and your email address will not be linked to your response in an Emerging Preferred Scheme Public Consultation Findings Report.

Disclaimer: Any information provided during the public consultation will be retained during the design and construction phase of the project. By providing details during the public consultation phase you are consenting to the use of personal data in accordance with Iarróid Éireann's privacy statement, which is available at www.irishrail.ie/legal/terms-of-use-privacy-statement-cookie-policy, to allow Iarróid Éireann and its agents to better understand your needs in relation to this project. If, for any reason, you wish to provide information or interact with the project in a confidential manner and not have such information disclosed because of its sensitive nature, then it shall be the responsibility of the person or body when supplying the information to make clear this wish and to specify the reasons for the information sensitivity.

1. Name

2. Email Address

3. Phone Number

4. Do you own or occupy property located within the immediate vicinity of a proposed Emerging Preferred Scheme?

(Please put a tick in the box that applies to you)

- ☐ Owner
- ☐ Occupier
- ☐ Not Applicable
- ☐ Other

5. Do you live adjacent or close to the railway line?

(Please put a tick in the box that applies to you)

- ☐ Yes
- ☐ No
- ☐ Not Applicable
- ☐ Other

6. If yes to the above, or you own property near the railway, please provide the Eircode.

7. Are you a regular user of the railway?
(Please put a tick in the box that applies to you)

- ☐ Daily
- ☐ Weekly
- ☐ Monthly
- ☐ Seasonal
- ☐ Never
- ☐ Other

8. I am making this submission in my capacity as a;
(Please tick all that apply)

- ☐ Landowner
- ☐ Member of the Public
- ☐ Environmental Group
- ☐ Statutory Organisation
- ☐ Student
- ☐ Public Representative
- ☐ Resident's Association / Community Group
- ☐ Organisation
- ☐ Other

Questions relating to ECRIPP

9. Five key locations, termed **Coastal Cell Areas** between Merrion Gates (Co. Dublin) and Wicklow Harbour (Co Wicklow) have been identified and assessed as particularly exposed to coastal erosion and climate change effects. Which CCA is of most interest to you?

- ☐ CCA1 Merrion to Dun Laoghaire
- ☐ CCA 2/3 Dalkey Tunnel to Shanganagh-Bray Wastewater Treatment Plant
- ☐ CCA5 Bray Head to Greystones North Beach
- ☐ CCA 6.1 Greystones to Newcastle
- ☐ CCA 6.2 Newcastle to Wicklow Harbour

10. As a result of climate change, more frequent storm events are having increasing effects on the coastal front, in terms of coastal erosion, wave overtopping and coastal flooding.

Do you agree with this statement?

- | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Strongly Agree | Agree | Neutral | Disagree | Strongly disagree |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

11. If coastal erosion continues and the railway becomes inoperable, will this have a significant effect on you?

- ☐ Yes
- ☐ No

12. If you answered yes to question 11, please expand on this answer.

13. Do you agree with the objectives of the East Coast Railway Infrastructure Protection Projects.

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Support the continued safe operation of rail services.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase railway infrastructure resilience to climate change.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide improved and sustainable coastal protection works against predicted climate change effects such as sea level rise, coastal erosion and storm surges on the east coast railway corridor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Secure the railway line for future generations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Allow for the long-term efficient management and maintenance of the railway corridor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support sustainable low carbon local, regional, and international connectivity fostering a low carbon and climate resilient society.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Public Consultation 1 Report

Coastal Cell Areas

Do you have any comments, suggestions, ideas on the presented Emerging Preferred Scheme for one or all Coastal Cell Areas as presented in the Preliminary Option Selection Report?

14. Coastal Cell Area 1 Merrion to Dún Laoghaire

The Emerging Preferred Scheme to be taken forward to public consultation consists of raised walls across the majority of the frontage and raised walkways and new walls at the amenity areas of Seapoint and Blackrock.

Do you have any specific feedback on CCA1 and/or do you have any suggestions or ideas on the presented emerging preferred scheme (e.g. structures, baseline, habitats, physical and environmental constraints, etc)?

15. Coastal Cell Area 2/3 Dalkey Tunnel to Shanganagh-Bray Wastewater Treatment Plant

The Emerging Preferred Scheme to be taken forward to public consultation is rock revetments and concrete walls with walkway.

Do you have any specific feedback on CCA 2/3 and/or do you have any suggestions or ideas on the presented emerging preferred scheme (e.g. structures, baseline, habitats, physical and environmental constraints, etc)?

16. Coastal Cell Area 5 Bray Head and Greystones North Beach

The Emerging Preferred Scheme to be taken forward to public consultation is rock revetments (at Bray Head) and rock headlands with managed cliff recession (at Greystones North Beach).

Do you have any specific feedback on CCA5 and/or do you have any suggestions or ideas on the presented emerging preferred scheme (e.g. structures, baseline, habitats, physical and environmental constraints, etc)?

17. CCA 6.1 Greystones South to Newcastle

The Emerging Preferred Scheme to be taken forward to public consultation is a combination of rock revetments and wave walls

Do you have any specific feedback on CCA6.1 and/or do you have any suggestions or ideas on the presented emerging preferred scheme (e.g. structures, baseline, habitats, physical and environmental constraints, etc)?

18. CCA 6.2 Newcastle to Wicklow

The Emerging Preferred Scheme to be taken forward to public consultation is rock revetments and wave walls.

Do you have any specific feedback on CCA6.2 and/or do you have any suggestions or ideas on the presented emerging preferred scheme (e.g. structures, baseline, habitats, physical and environmental constraints, etc)?

Any other feedback.

19. Do you have any other feedback that you would like us to consider?

End of Feedback Form

Thank you for taking the time to participate in our consultation process. Your feedback will be recorded, collated, analysed, and evaluated to determine appropriate changes to the Emerging Preferred Schemes.

After you submit your final question, you will no longer be able to go back and change any of your answers.

20. Do you wish to be added to our mailing list for periodic Project updates? *

(If you do not wish to receive any updates on the Project's progress you will not need to provide an email address)

☐ Yes

☐ No

21. On a scale of 1 to 5, rate how easy you found this survey to complete. (1 being very easy and 5 being very difficult) *

1

2

3

4

5

Appendix I Total Submissions Received

Submission Type	No of Submissions
Member of the public	119
Landowner	14
Community Group	10
County Council	3
Business Group	2
Conservation Group	2
Environmental Group	2
Student	4
Residents Association	3
Cycling Group	3
Rail Advocacy Group	1
Sports Organisation	1
Statutory Body	1
Public Representative	1