

## Why are we replacing the cable?

In August 2017, the two 33kV (kilovolt) submarine cables providing electricity from Carradale in Kintyre to the island of Arran were routinely inspected using a Remote Operated Vehicle (ROV).

This inspection revealed the north cable which runs from Port Crannaich in Carradale to Balliekine in Arran was in poor condition with significant damage to the protective armour - probably caused by contact with rocks. The cable to the south showed that the protective armour was intact and no further action is required.

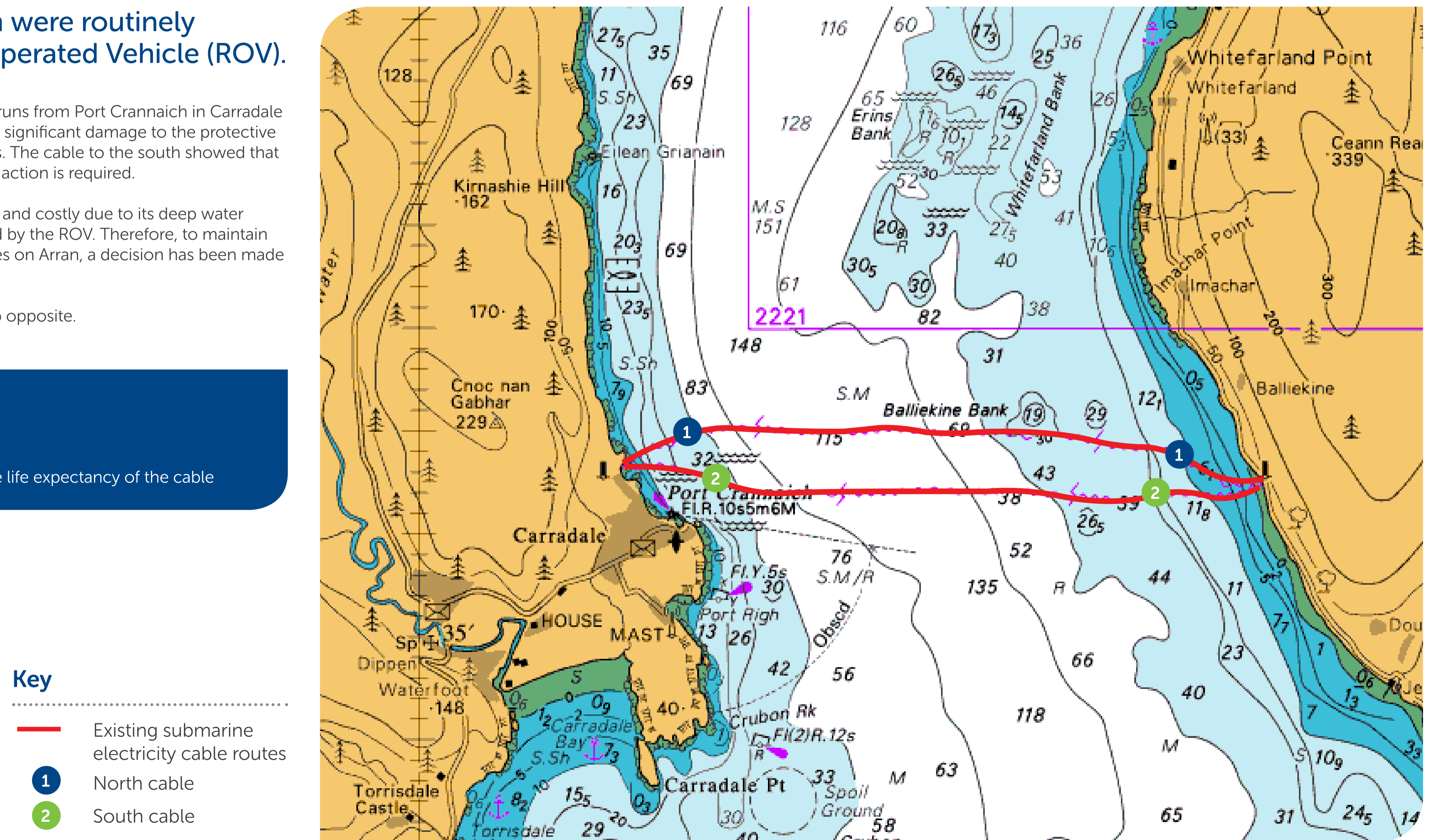
Repairing the north cable would be challenging and costly due to its deep water location and the extent of the damage observed by the ROV. Therefore, to maintain the supply of electricity to homes and businesses on Arran, a decision has been made to completely replace the cable.

The existing cable routes are shown on the map opposite.

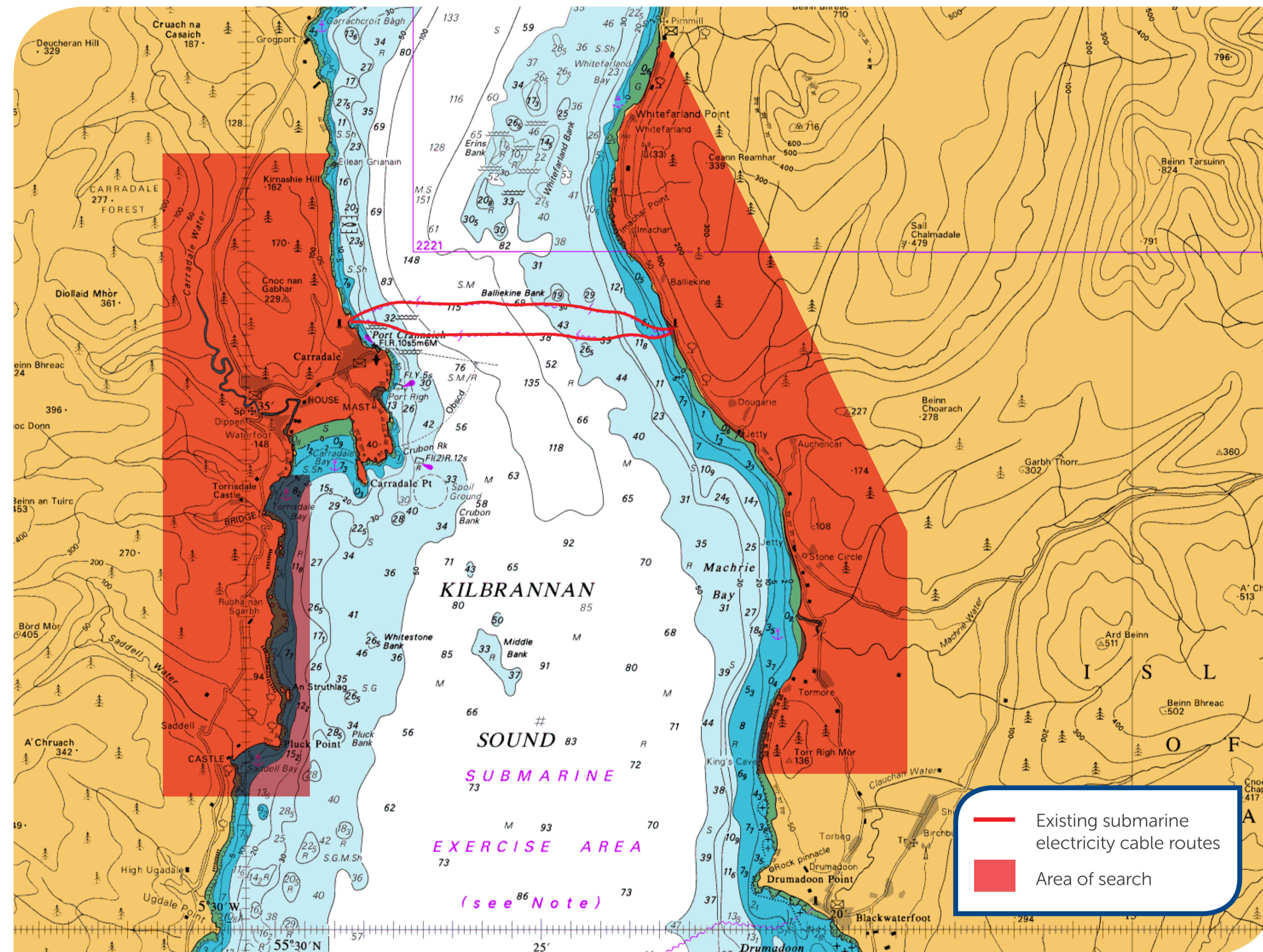
### Benefits of the proposal:

- Security of supply to the island of Arran
- Route design will be optimised to increase life expectancy of the cable

Map showing existing cable routes



## The proposals



Investigations to assess potential routes for the replacement submarine electricity cable and associated shore end landing points are ongoing.

### Our key considerations include:

- Identifying suitable coastal locations to achieve the most effective shore end burial of the new cable
- Ensuring the operational safety of the existing "live" cable

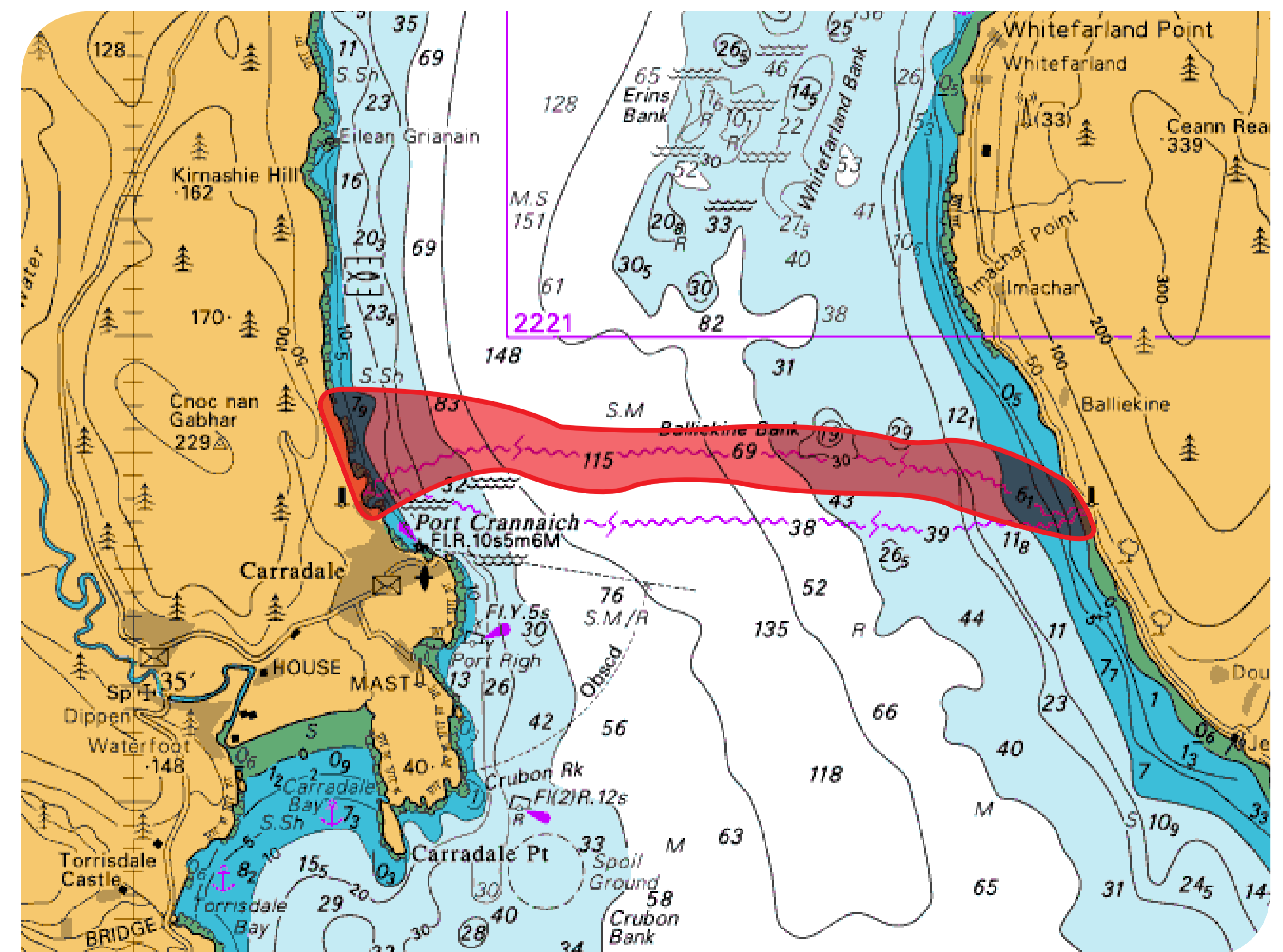
Desk top studies, which consider the environmental, geological, archaeological and engineering constraints, have allowed a 1000m width corridor between Carradale and Arran in which the new cable could be located.

The map opposite shows the cable corridor.

The new cable will be positioned within this corridor; however, the final cable route will be confirmed after further surveys and assessments have been completed.

An initial review of cable landing points in Arran indicate that the new cable should land close to the existing cable at Balliekin.

Several options for the cable landing point at Carradale are being investigated.



## Cable installation methods

Historically, all our submarine electricity cables were surface laid on the seabed with minimal protection. However, since the introduction of Scotland's National Marine Plan in 2015 it has been a requirement to look at cable burial where appropriate.

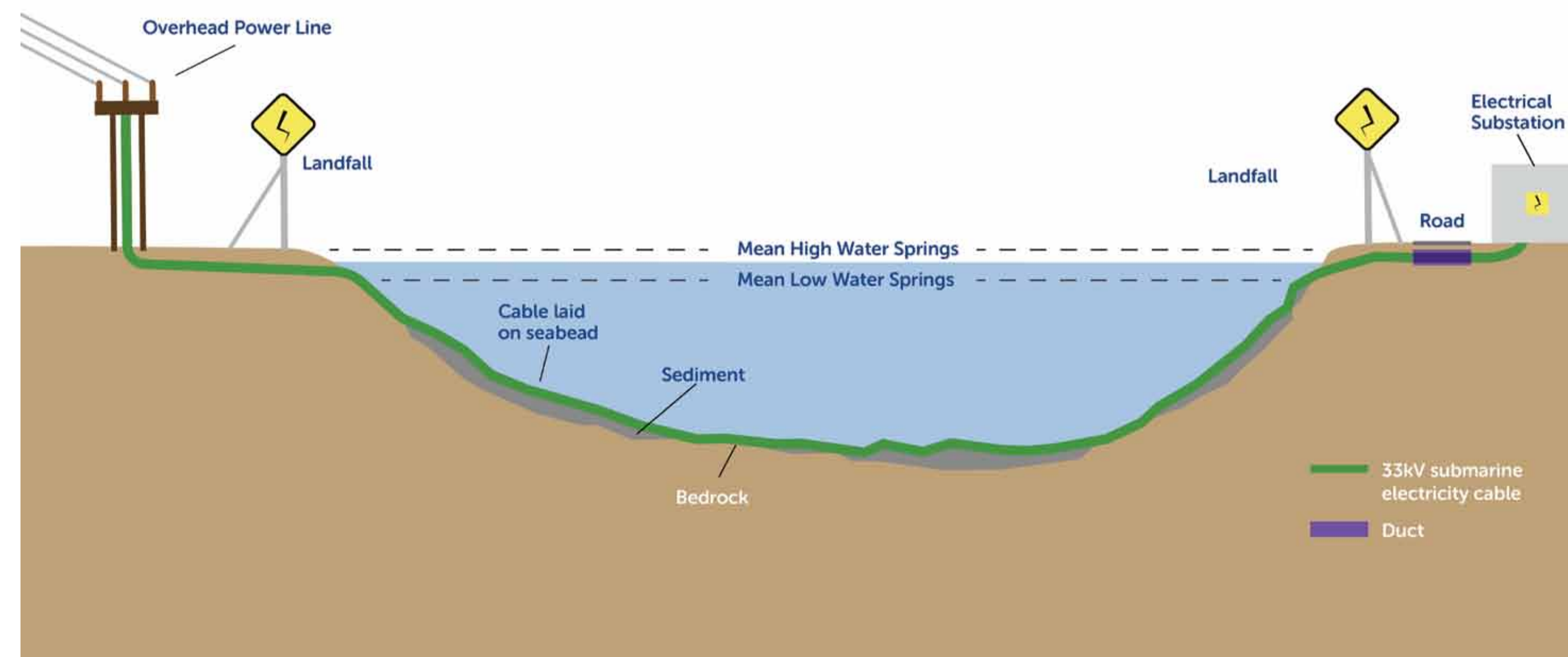
If cable burial is not feasible then other protection methods maybe considered.

There are two potential methods of installation being considered for this proposal:

- Surface lay with protection
- Cable burial

Both options options are illustrated in the cross section diagrams.

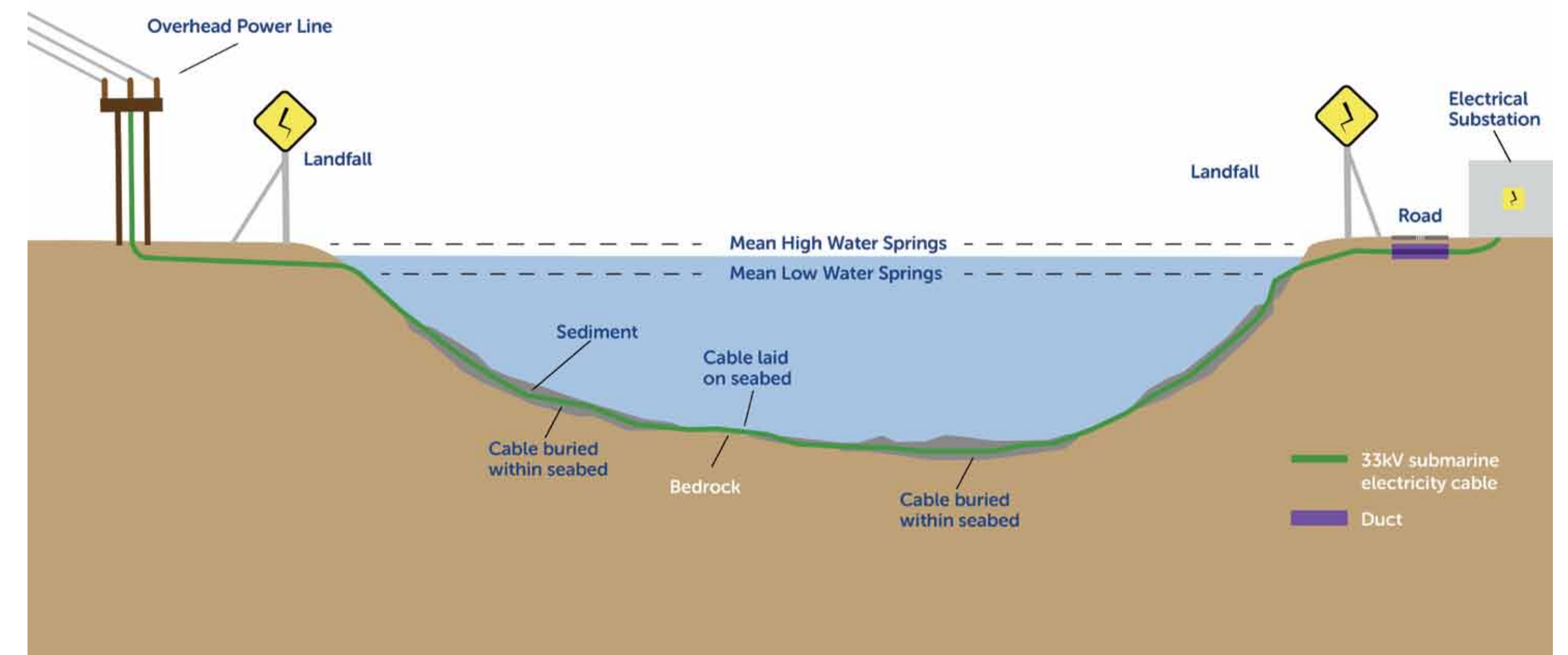
### Surface Laid Cable Illustration



Carradale shore

Arran shore

### Cable Burial Illustration



Carradale shore

Arran shore

Due to seabed conditions in this area, the proposed method of cable installation is likely to be surface lay with protection, although some sections of the cable may be buried if possible.

Various methods of protection can be used to cover the cable on the seabed, including;

- **Rock placement**  
Covering the cable with rock of a suitable size and type
- **Rock filter bags**  
A filter bag filled with rocks typically 2m x 2m is used to protect and secure the cable at key points for stability
- **Mattressing**  
A concrete 'mattress', typically 3m x 6m, is used to protect the cable at key points

## Your views matter and next steps



### How will our plans affect marine users, islanders, businesses and visitors?

Our plans are developed to minimise impacts on local people and marine users.

Initial studies show that the water around our proposed cable location is used for low to intermediate levels of recreational yacht racing; sea angling; scuba diving and surfing and high levels of recreational sailing; motor cruising; power boating and canoeing. These activities are unlikely to be affected by our proposal.

Trawling is the main fishing activity in the vicinity of our submarine electricity cables, particularly off the west coast of the Isle of Bute. We are proposing to minimise the risk of snagging by burying the cable end to end. Other types of fishing activity in the area such as static fishing with pots and creels would be unaffected our proposal.

We employ a Company Fishing Liaison Officer and Fishing Industry Representative who will advise local mariners of our plans and ensure all are notified in advance of works to minimise disruption.

### How will our plans affect nature?

We undertake desktop studies and on site environmental surveys to identify any protected species or habitats that we need to avoid or manage during our works.

We will check for visual evidence of sensitive habitats in the marine environment (such as horse mussel beds) and re-route the cable where possible to minimise impacts on these.



### Consultation - let us know what you think

Consultation is a key element of project development. We are committed to involving the local community and other interested parties in this process.

We seek your views in the following ways:

- At this exhibition by providing comments and suggestions either directly to a member of staff or via a feedback form
- By email to [submarinecables@sse.com](mailto:submarinecables@sse.com)

### Next steps

- You have six weeks until 5 July 2018 to submit your comments about our proposal directly to us
- Your comments will be compiled and used in the Pre-Application Consultation (PAC) Report. Also included in the PAC is a description of amendments to be made to our application, where applicable, in response to your comments
- The PAC will form part of our Marine Licence Application for a Construction Project which will be submitted to Marine Scotland in Autumn 2018
- A formal newspaper advertisement in the local press will notify members of the public and stakeholders that an application has been submitted
- Consultees and members of the public will then have another opportunity to comment on our application as part of Marine Scotland's consultation process.



### Your comments are important

Before leaving today, please take the time to fill out our feedback form and offer additional comments. The information you provide will be helpful to us in assessing the acceptability of the proposal as displayed at this event.

Your feedback will be compiled into a document which will form part of the Marine Licence Application for this construction project.

## Development timeline

