

Co-ordinates for Carnac SPS Short Sea Outfall end of pipe – 266032, 847277



*Figure 1 Carnac SPS Short Sea Outfall – end of pipe*

The check valve at the end of the short sea outfall from Carnac SPS requires to be replaced as it has reached the end of its design life. The valve is now failing to exclude sea water from the outfall at high tide conditions, impacting on wastewater treatment infrastructure upstream, and so the valve must be replaced.

The replacement non-return/check valve weighs approx. 300kg so this requires intervention by plant/machinery to remove the existing valve, manoeuvre the new/replacement valve into position and assist with its final installation. There will be no excavation required, only to take access down to the required position in close proximity of the end of the short sea outfall to complete the replacement of the said valve.

Apart from the removal of existing and replacement with new valve the other works will simply require the removal of any matter/vegetation which may now be covering the end of the outfall pipe (internally & externally) in order to provide a 'clean' face for the new valve to be successfully installed.

The duration of the work is expected to be two days, as follows;

Day 1:

2no. Contractor Operatives to go to end of outfall pipe and begin clearing debris from end of pipe.

Use of a grinder with a wire wheel to clean up where the new NRV (non-return valve) will sit inside of the pipe.

Day 2:

Crawler crane and mini digger on site.

Crawler crane to take mini digger down onto foreshore to clear heavy debris away from pipe.

Crawler crane will then take mini digger back onto land and then bring NRV to end of pipe.



With aid of crawler crane NRV will be slid into position inside of pipe and secured.



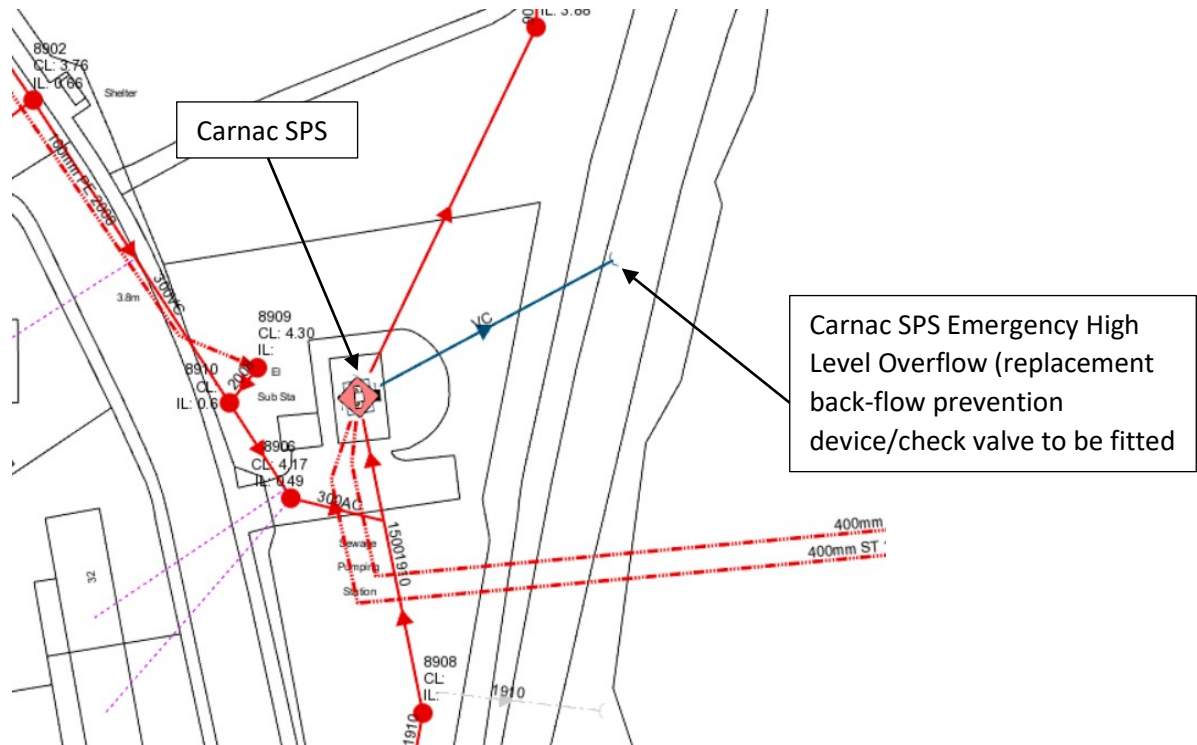
*Figure 2 Crawler Crane*



*Figure 3 Mini digger*

Carnac Point Valve Spec:

- ☐ CMCBUF-360-22-M895 NEO 304 – 900mm Inline CheckMate Ultraflex Valve
- ☐ Max Back Pressure – 9.1m
- ☐ Weight – 330kg
- ☐ Material – Neoprene



Co-ordinates for Carnac SPS Emergency High Level Overflow end of pipe – 265901, 846953

Any plant/machinery would be positioned to the landward side and not require to take access down onto any tidal location. The old valve would be removed and replaced with the new valve by means of the plant reach and the localised positioning at the end of pipe would be undertaken manually by operatives.

Carnac/Riverside Valve Spec:

- ☐ CMCBUF-360-22-M895 NEO 304 – 885mm Inline CheckMate Ultraflex Valve
- ☐ Max Back Pressure – 9.1m
- ☐ Weight – 330kg
- ☐ Material – Neoprene



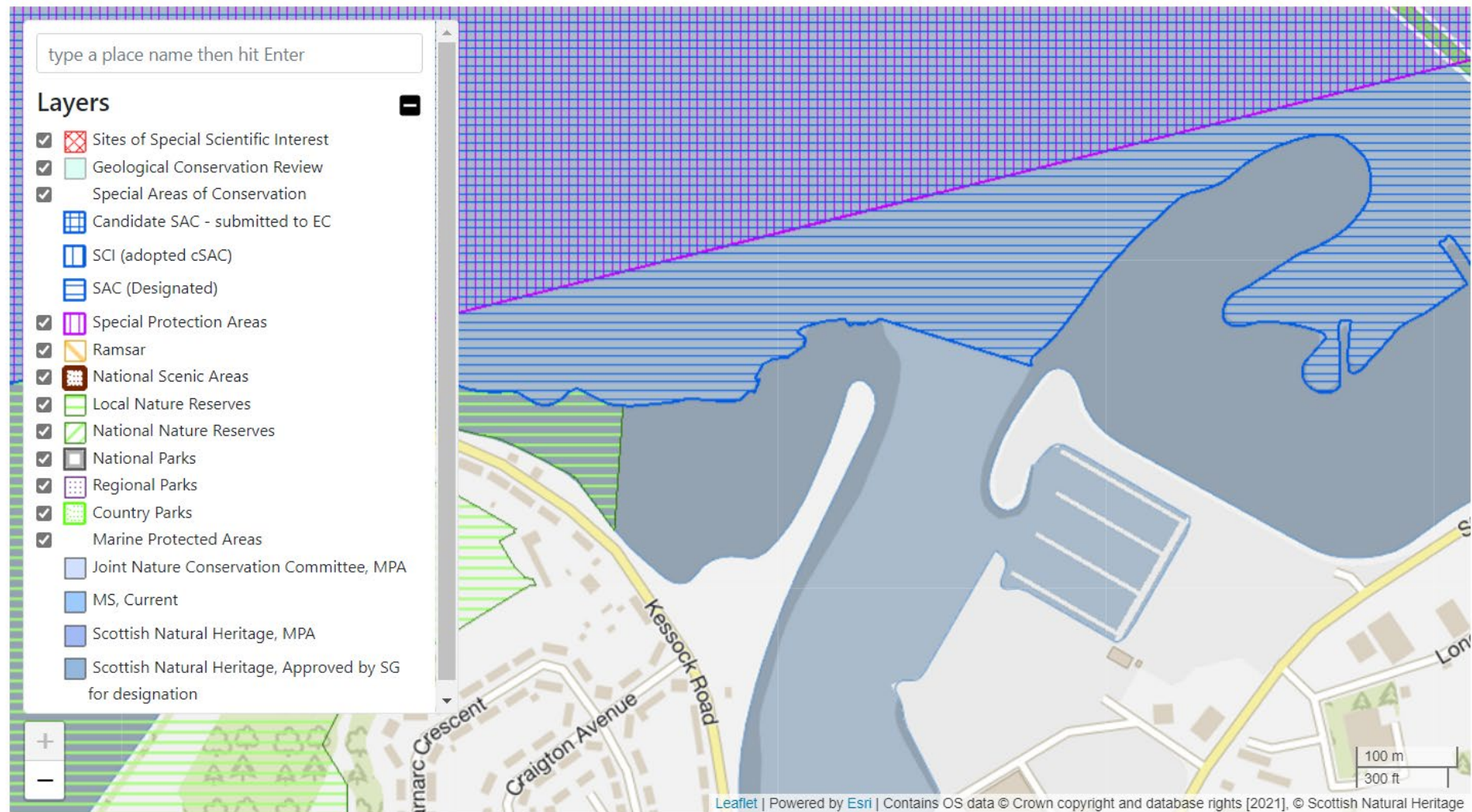


Figure 4 Protected Areas near Carnac SPS Short Sea Outfall (NatureScot)

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### Inverness Harbour, Western Breakwater

*Canmore*

Classification: BREAKWATER  
(PERIOD UNASSIGNED)

Reference: 280002

[Details \(opens a new window\)](#)

### Inverness Harbour, Western Breakwater

*Historic Environment Record*

Classification: BREAKWATER

Reference: MHG49489

[Details \(opens a new window\)](#)

### Easting/Northing

265999, 847245

### Latitude/Longitude

57° 29' 44" N 4° 14' 15" W

### Mapsheets

100057073



Figure 5 Archaeological Features near Carnac SPS Short Sea Outfall (PastMap)

