



SMP2 Policy Unit:
Llanaber

Flood cell extends beyond our study area. **Additional flood mitigation measures** to prevent over-topping north of the study area - defences either seaward/landward over a length of approximately 0.1km

Existing 1.17km of **primary sea wall** to be:
- Increased by +450mm (from 5.8mOD to 6.25mOD)
- Wave re-curve to be re-profiled to improve form

Existing **sheet piles** to be **refurbished** - over approximately 515m length

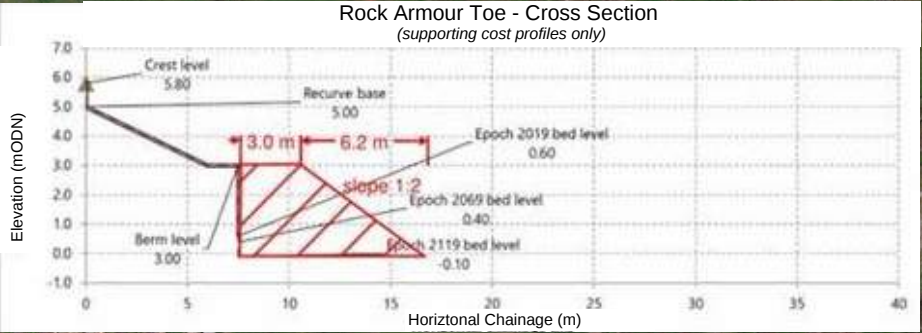


Tertiary flood wall to be re-built structurally and increased by +Xmm (from 6.4mOD to XmOD); over a length of approximately 1.1km

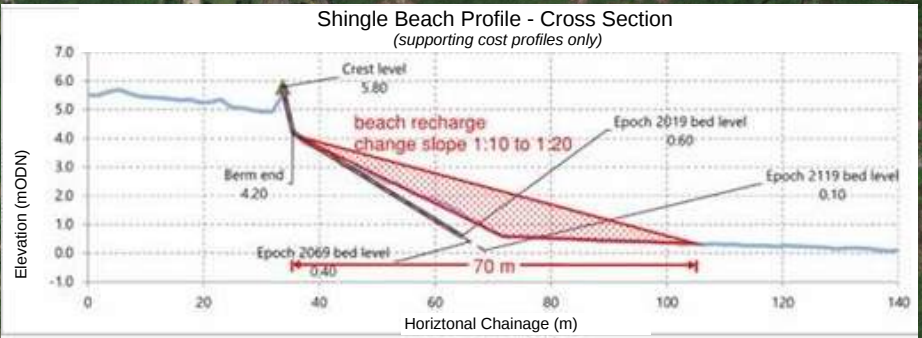
Transition zone to adjacent SMP2 Policy Unit. Detailed consideration required of detailing to tie-in with existing levels.

SMP2 Policy Unit:
South Barmouth

Additional 300m of **rock toe armour** to be provided to protect the primary sea wall and revetment.



560m of **shingle beach profile** to be built out to protect the primary sea wall and revetment.



Legend

Existing defences

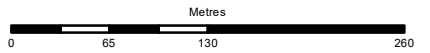
- Sea wall
- Secondary wall
- Tertiary wall
- Demountable barriers
- Groynes
- Existing surface water culvert
- Existing surface water pumps and flapped outfalls

Construction Activities Works:

- Extents of works to the primary sea wall
- Extents of refurbishment to sheet piles
- Extents of works to tertiary flood defence wall
- Extents of rock toe structure to afford protection to the primary defences
- Extents of additional beach material to afford protection to the primary defences

P0	2019-03-19	RJ	PA	RC
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Issue	Date	By	Chkd	Appd
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Client

YGC
(Ymgynghoriaeth Gwynedd Consultancy)

Job Title

Barmouth North Promenade

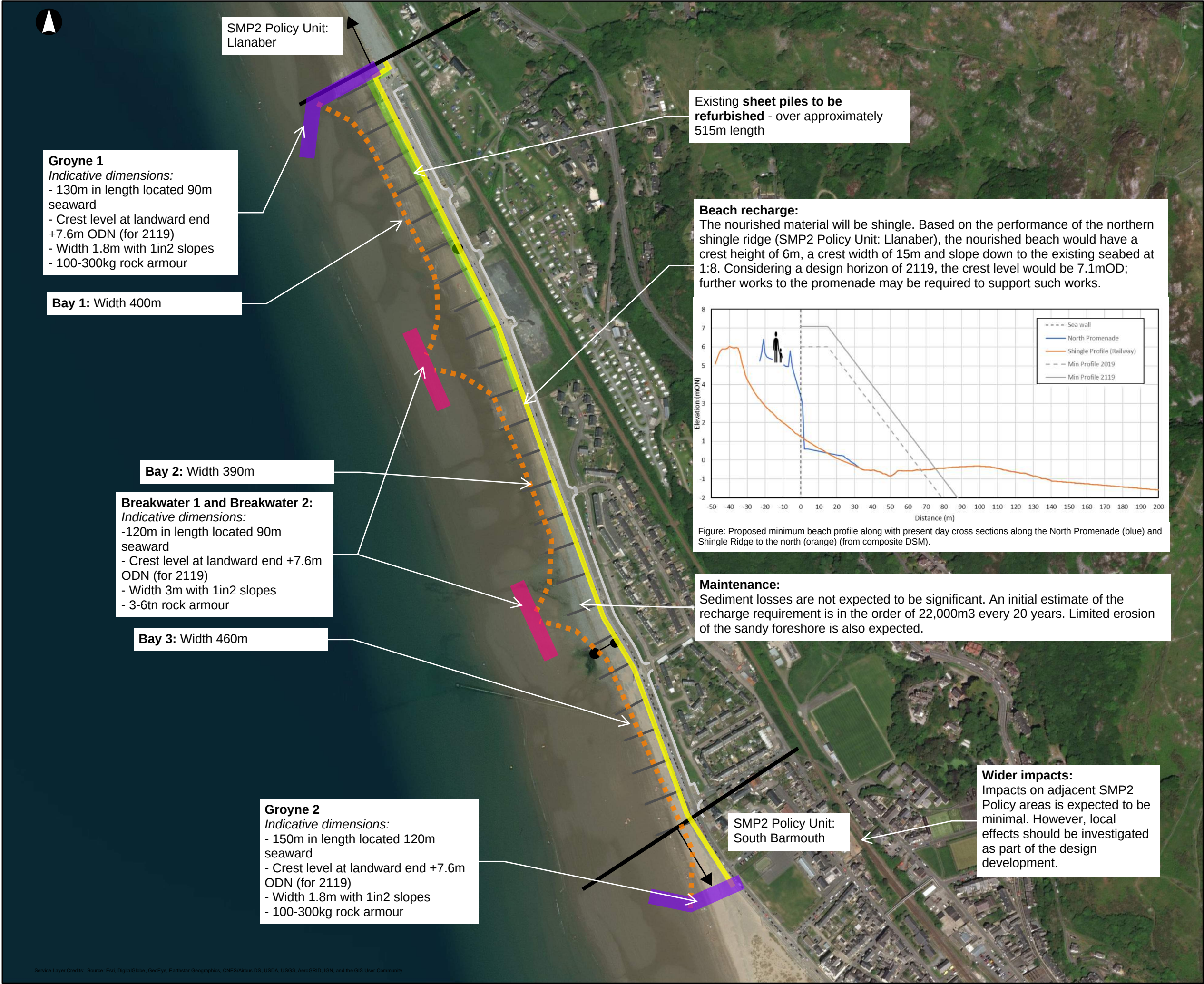
Do-Something Option 2:
Extend lifespan and betterment of
existing defences

Scale at A3

1:5,000

Job No	Drawing Status
264326-00	Preliminary

Drawing No	Issue
ARP-XX-EP-DR-CS-0002-SK	P0



Legend

Existing defences

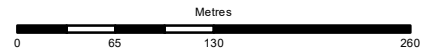
- Sea wall
- Secondary wall
- Tertiary wall
- Demountable barriers
- Groynes
- Existing surface water culvert
- Existing surface water pumps and flapped outfalls

Construction Activities Works:

- Breakwaters (indicative location)
- Gryones (indicative location)
- Beach crest level
- Beach build-out profile
- Refurbishment to existing sheet piles

P0	2019-03-19	RJ	PA	RC
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Issue	Date	By	Chkd	Appd
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Do-Something Option 3:
Beach Management: Offshore Rock
Breakwaters, Terminal Gryones and
Beach Recharge

Scale at A3

1:5,000

Job No	Drawing Status
264326-00	Preliminary

Drawing No	Issue
ARP-XX-EP-DR-CS-0003-SK	P0



Legend

Policy Unit

- 11.16 South Barmouth
- 11.15 Barmouth North (Option 4a Indicative)
- 11.15 Barmouth North (Option 4b Indicative)
- 11.14 Llanaber

Existing defences to be removed

- Sea wall
- Secondary wall
- Tertiary wall
- Demountable barriers
- Groynes

Additional option activities

- Heol-Y-Llan Estate at risk under Option 4a
- Land for acquisition or compensation
- Existing surface water culvert to be replaced
- Existing surface water pumps and flapped outfalls to be replaced

P0	2018-10-04	NM	RJ	RC
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Issue	Date	By	Chkd	Appd
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Metres

0 65 130 260

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Do-Something Option 4:
Managed Realignment

Scale at A3

1:5,000

Job No	Drawing Status
264326-00	Preliminary

Drawing No	Issue
ARP-XX-EP-DR-CS-0004-SK	P0

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