

Sidmouth & East Beach Management Plan (BMP)

Short-List Option #S3

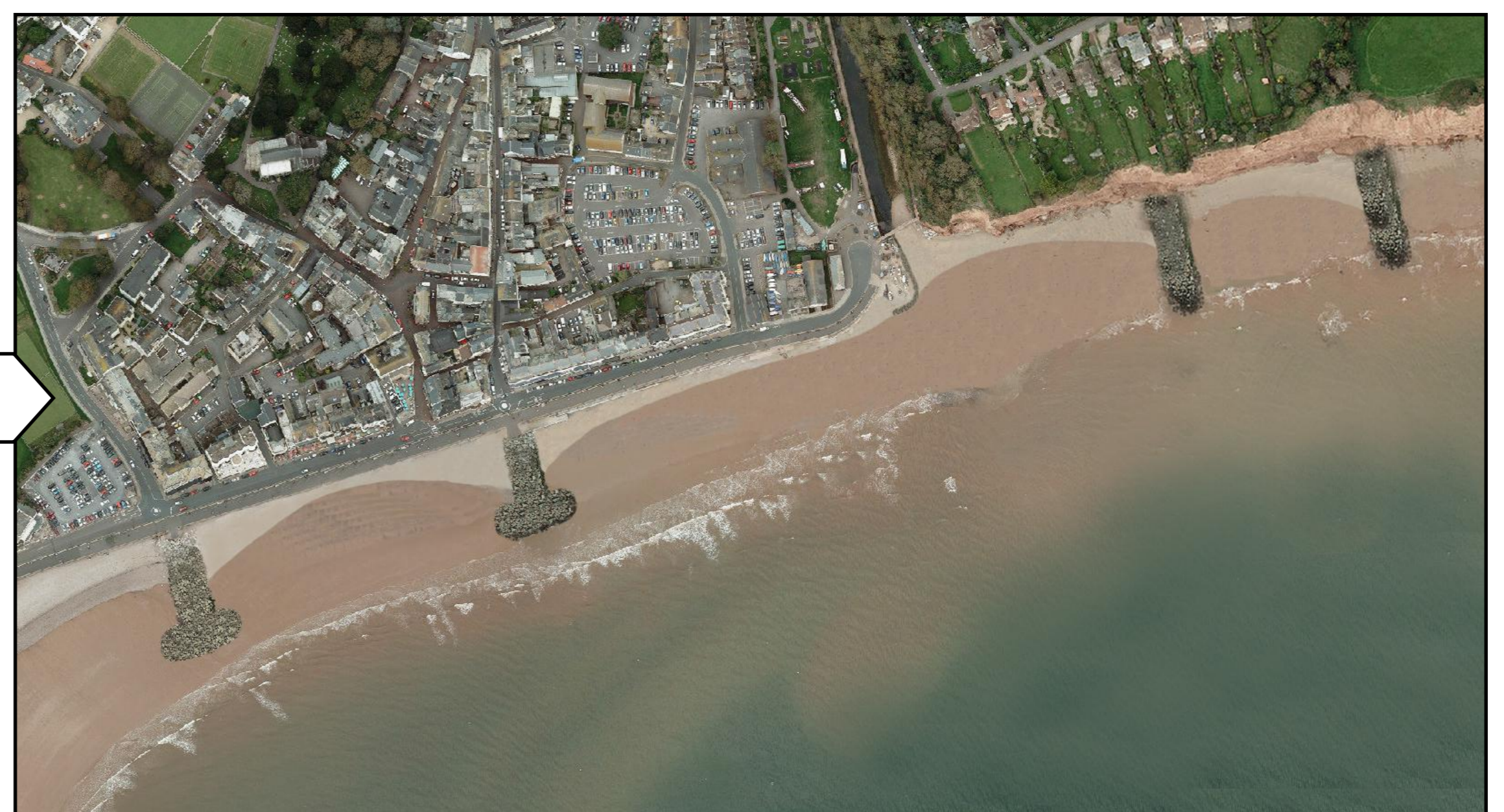
A: Jacob's Ladder Beach and Connaught Gardens	B: Sidmouth Town	C: East Beach	D: River Sid Western Wall
Undertake maintenance of seawall, promenade and rock revetment including re-packing of rock, guided by regular inspection. Periodic removal of shingle from Jacob's Ladder Beach promenade area, with sediment placed to the west of the wall within this sediment cell. This is the same as in Options S1, S2 and S4.	Modify existing Bedford Steps and York Steps rock groynes to make 'T-head' type groynes to retain sediment in small stable bays between each groyne bay. Support with periodic beach recycling and/or recharge to retain volume to give required design beach. Remove East Pier rock groyne and free-standing length of the training wall and place rock-armour around seawall where it curves into the River Sid.	Construct 1 short/low level rock groyne to the east of the River Sid to aid beach levels control as it transitions eastwards; supported by periodic beach recycling within Frontage B. This is the same as in Options S1 and S2. Note, a sensitivity test will be done on the implications of constructing 2 groynes instead of 1.	Undertake maintenance of the existing River Sid western wall for as long as is economically viable then replace with a coastal standard wall as it becomes at risk of being exposed by erosion at East Beach. This is the same as in Options S1, S2 and S4.



Illustration of how 2 groynes along East Beach could look with modified and reduced number of groynes along Sidmouth Town

Illustration of how 1 groyne along East Beach could look with modified and reduced number of groynes along Sidmouth Town

Please note, that these are provided for illustration of the option only and are subject to change and refinement as part of further detailed investigations to develop the final design should this be taken forward as the preferred option.



Key points from Technical Appraisal

- Provides required standard of flood risk protection, increasing potential for future development within the Sidmouth frontage.
- No residential or commercial properties would be lost to erosion within 100 years.
- Option protects tourism and amenity interests including SW Coast Path National Trail, beach huts and Connaught Gardens from erosion.
- Delays and reduces impact of erosion of East Cliff on Alma Bridge and River Sid western wall, but does not prevent it.
- Assumes commitment to regular beach recycling and recharge as beach levels will still be quite variable at eastern end, though beach will be more stable along parts of frontage with T-Head groynes.
- Greater reduction in length of training wall (compared to Options S1 and S2) along River Sid further improves connectivity to East Beach.
- Two groyne option likely to perform better than one groyne option along East Beach.

Key points from Economic Appraisal

- **Estimated Cost:** £14,566,000
- **Benefit:Cost Ratio:** 5.9
- **Amount of Partnership Funding Contribution required:** £9,558,000

Key points from Environmental Appraisal

Receptor	Potential impacts of option
Geology Geomorphology	Implementation of the scheme is likely to inhibit natural coastal processes rather than promote, affecting UNESCO World Heritage Site and nationally designated geological sites. Impacts likely to be less than other options.
Water quality	Increased threat of greater chemical pollution (chemical composition unknown) by increased volume of sediment.
Ecology	Potential increased impact on nationally and internationally designated ecological features including SAC features, BAP Habitats and nursery and spawning grounds of fish species.
Fisheries	Temporary effects to launch/landing access from construction and maintenance works if undertaken across all four frontage sections at a similar time
Navigation	Temporary in-combination effects to launch/landing access from construction and maintenance works if undertaken across all four frontage sections at a similar time.
Landscape	Short term visual impact during construction. Long term, a greater visual impact from changes at Sidmouth Town and East Beach on setting of designated and non-designated features including Sidmouth Town Centre Conservation Area, listed buildings, WHS, East Devon AONB, East Devon Heritage Coast and the Blackdowns NCA.
Archaeology and Cultural Heritage	Potential long term effect on the setting of cultural heritage asset.
Air quality	Any effects are considered negligible.
Noise	Increased noise and vibration impacts during construction works.
Amenity value	Potential temporary, negative effect on amenity value during construction periods. Positive impact of ensuring beach is provided for amenity benefit through ongoing regular beach recharge and recycling.