GOOD PRACTICE CASE STUDY

PANORAMA PROJECT

Medmerry Managed Coastal Realignment

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LOCATION

Medmerry, Selsey, United Kingdom

BENEFICIERIES

Local community on the Selsey Peninsula affected by coastal flooding (towns of Selsey, East Wittering, Bracklesham, Church Norton and other smaller villages); Sussex Beach Holiday Village, farmers, caravan park inhabitants, local business owners

CHALLENGE

In response to increased coastal flood events and resulting damages, the Environment Agency of the United Kingdom delivered a GBP 27 million project to realign the defences inland, providing significantly improved flood defences to allow for managed flooding. Medmerry was historically protected by a narrow shingle embankment, holding back only the very smallest coastal storms. This posed significant actual and potential risks to life and caused damage to property and infrastructure with increased flood events, and the additional coastal squeeze caused losses of coastal habitat. With the help of IUCN, a full assessment against the criteria and indicators of the IUCN Global Standard for NbS was conducted.

APPROACH

Medmerry was one of the first large-scale managed realignment projects in the United Kingdom. Re-imaging a change to the landscape at this scale was scary and not welcomed by the community. To overcome these challenges, the approach was adapted and with the

Aerial shot - September 2013 © Environment Agency

community and local businesses working to create a space which was more than a flood defence. Placing greater emphasis on community engagement and understanding the concerns, fears and hopes of the people living around Medmerry was key in making the intervention a success. Through this, additional opportunities emerged that were not considered during the original planning, such as the role and benefits for local businesses. This space for engagement has paved the way for future iterations of realignment elsewhere and has become a focal point for the area, with businesses changing their name to mirror Medmerry and create new eco-tourism opportunities. Working with nature to reduce flood risk has done more than any traditional approach could have.

INTEGRATED IMPACT: ADAPTATION, BIODIVERSITY, MITIGATION

The main positive impacts of the Medmerry-managed coastal realignment include improved flood risk management, creation of 300 hectares of wildlife habitats, enhanced landscape quality and provision of recreational facilities. Flood risk has been reduced from an annual overtopping of the defences to a likelihood of less than 0.5% in any given year, which not only benefits over 300 houses but also a waste water treatment works serving the local area. In 2014, there was a storm which would have previously caused some GBP 6 million of damage to the wider economy, but with the new defences in place, passed without incident. Coastal habitat which is being lost elsewhere has been given space to grow, with dramatic uptake by wildlife, including fish, birds and even sharks. Similarly, following comprehensive community engagement, the site is now one the local residents are proud of, with visitor numbers in the region of 20,000 plus per year.

KEY SUCCESSES

Economically viable solution: A cost effectiveness assessment of the planned intervention and an options appraisal was undertaken during the planning phase. Economic benefits derived from the NbS include around GBP 91.7 million in economic benefits (including GBP 13.5 million in environmental benefits). The coastal realignment contributed to the protection of more than 300 residential and commercial properties as well as infrastructure. An estimated 22,000 people visit the area annually supporting the local economy.

Robust monitoring framework: The expected benefits of the coastal realignment were documented in the planning phase and baselines established. These informed the ongoing monitoring of impacts. Immediately after project completion, a 5-year monitoring programme was implemented.

KEY PUBLICATIONS AND RESOURCES

- The Green-Gray Infrastructure Funding and Finance Playbook by the Global Green-Gray Community of Practice (G3COP).
- The Practical Guide to Implementing Green-Gray Infrastructure by the Global Green-Gray Community of Practice (G3COP).
- The International Guidelines on Natural and Nature-Based Features for Flood Risk Management, by the U.S. Army Corps of Engineers (USACE) Engineering With Nature® (EWN) Initiative.