5.6 NATURAL ENVIRONMENT

NATURAL AND GREEN INFRASTRUCTURE

CURRENT SITUATION

Green infrastructure has the potential to deliver a wide range of benefits, including recreation, biodiversity, health, climate change mitigation and adaptation, sustainable travel and water quality.

There is strong economic evidence to show that green infrastructure is an essential component of building communities where people want to live, in attracting and retaining businesses and in tackling obstacles to economic growth in ways which enhance the environment.

Green infrastructure is also less expensive than 'grey infrastructure' (pipes, ditches, detention ponds) and improves quality of life and health and well-being. Green infrastructure can no longer be viewed as a 'nice to have' option but instead is a fundamental part of building communities and resilience for the future.

HEADLINES – WHAT KENT AND MEDWAY CURRENTLY HAVE

- 45,000 ha of broadleaf woodland.
- 116 sites of national and international importance for nature conservation.
- The Kent Downs and High Weald Areas of Outstanding Natural Beauty cover approximately 32% of the County.
- 3,030 ha of parks, gardens and amenity greenspace.
- The Public Rights of Way (PRoW) Network extends to 4375 miles (7000 km) across Kent.
- The PRoW network represents 42% of Kent's highway network.

IDENTIFIED INFRASTRUCTURE PROJECTS

- Green corridors around Ashford.
- Green and blue infrastructure improvements in Maidstone Borough.
- A range of green infrastructure provision and enhancement in Canterbury and Dover.

FUTURE REQUIREMENTS

Green infrastructure planning and delivery is essential in underpinning future sustainable economic growth. All of Kent's local authorities have carried out green infrastructure network planning at a strategic level, but there is a need for increased green infrastructure and better connections across the County. There is also a need for better planning of green infrastructure so it can help meet the challenges faced from future risks arising from climate change, in particular extreme weather events.

Investing now in green infrastructure can help reduce some of the future burdens on other infrastructure, such as health and flood management. Investment will be needed to:

- Provide significant quantities of new greenspace for Kent and Medway's residents, so that future generations have the same level that current residents enjoy;
- Provide robust green infrastructure planning so that local authorities can provide and manage green infrastructure which fully supports adaptation to climate change, improves flood management and prevention, improves urban air quality and provides the other important benefits which underpin sustainable economic growth;
- Continue to ensure that people can enjoy recreational activities, and the health and well-being benefits these provide, without causing harm to Kent's most sensitive wildlife habitats and species;
- Improve the connectivity of habitats to provide robust ecological networks;
- Provide new allotments to provide for an increased population;
- Provide green infrastructure as an intervention to ensure healthier communities.

If local authorities are to meet their locally set standards with an increased population in 2031, the following will be required:

- 404 hectares of parks and gardens;
- 782 hectares of amenity greenspace;
- 135 hectares of allotments; and
- 1,126 hectares of natural and semi-natural greenspace.

Summary of total costs/funding for natural and green infrastructure projects (2017-2031)
Total Cost = £38,971,000
Total Funding = £20,335,000
Secured Funding = £16,089,000
Expected Funding = £4,246,000
Funding Gap = £18,636,000

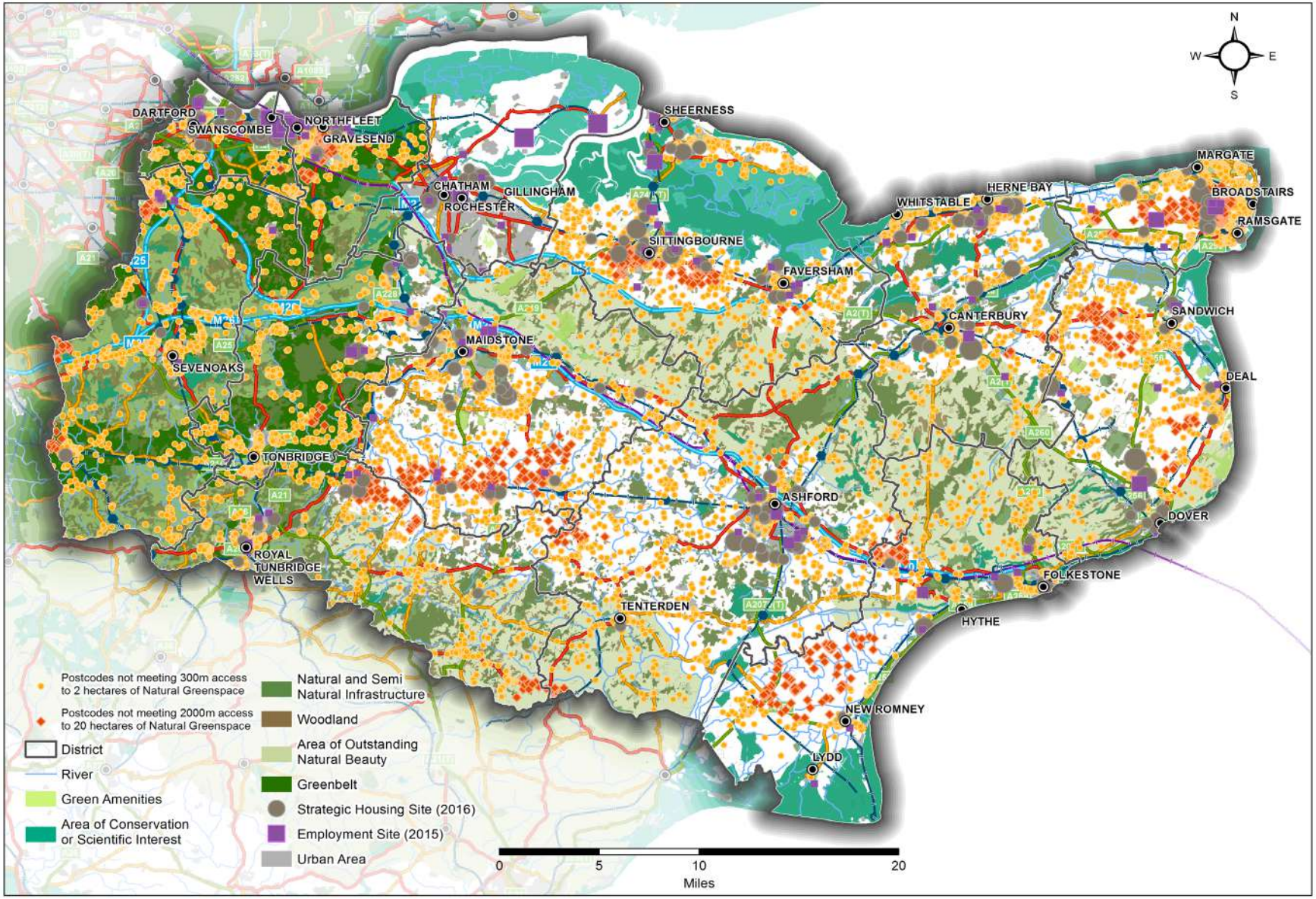

Figure 5.13: Natural and green infrastructure provision in Kent and Medway

FLOOD PROTECTION

CURRENT SITUATION

Kent and Medway have one of the highest flood risks in England, with risks of flooding from coastal, fluvial, surface water and groundwater in the County. Surface water is behind the majority of flooding incidents and there have been 2,500 historical flood events in Kent and Medway since 1986.

- Approximately 60,000 homes at risk of fluvial and tidal flooding.
- 22,000 homes at risk of surface water flooding.

The chalk aquifers in Kent and Medway present a risk of groundwater flooding, notably in the Nailbourne Valley in Canterbury. An example of management includes the Kent Local Flood Risk Management Strategy that exists to identify objectives to manage local flood risk to local communities.

HEADLINES

The Environment Agency (EA) has currently identified 79 flood defence projects in the future pipeline. The risks associated with climate change and increased building on flood plains will need to be managed in the future, as the population continues to increase. The EA is also currently developing the Medway Estuary and Swale Strategy for the River Medway.

Flood risk management can only progress with sufficient capital funding. There needs to be better follow-through of policy into the policy drivers (e.g. funding and more compatibility between the various funding drivers in different sectors).

ACTIVITY SINCE LAST YEAR

The River Medway Flood Partnership was introduced in January 2017 to enable a collaborative approach to supporting flood risk and watercourse management. The partnership is working to ensure that multiple capital investment programmes are aligned with local planning policies and highway authority investments.

Working with the partnership, the EA has completed its initial assessment of the flood risk management option for the River Medway to provide protection for Tonbridge, Hildenborough, Yalding, Collier Street and the surrounding areas.

The initial assessment was undertaken to consider a wide range of options, including flood storage, to ensure the best solution is found for these areas. The outcome of this work is to increase the capacity of the Leigh Flood Storage Area, provide an embankment to protect Hildenborough and deliver property and community-level resilience measures for Yalding, Collier Street and other communities in the Middle Medway.

The EA and its partners are now working on an outline business case, which will lead to the full business case being submitted to Defra in 2018. Once approved, the project will then move to the detailed design phase in 2018-2019. Currently, the indicative funding programme shows construction between 2019 and 2022 .

KEY INFRASTRUCTURE PROJECTS

- Flood risk and coastal erosion protection for the Romney Marshes, from Folkestone to Cliff End.
- Leigh Flood Storage Area and flood defences to protect Hildenborough and property/commercial resilience for Middle Medway.
- Great Stour Flood Alleviation Scheme: the EA is working on a flood defence scheme for Canterbury and Fordwich to protect against flooding from the River Great Stour. The scheme protects over 400 properties at risk of flooding from the 1 in 100 year event.

FUTURE REQUIREMENTS

The Thames Estuary 2100 project is one of the most important strategic projects tackling flood risk management in Kent and Medway. The project addresses the implications of climate change, sea level rise and ageing flood defences along the Thames Estuary, including Dartford, Gravesham and Medway.

Sustainable Drainage Systems (SuDS) offer opportunities to mimic natural drainage that can reduce flood risk and offer other benefits, such as amenity space and habitats. The lack of a formal adoption mechanism by a recognised authority with a funding stream is a barrier to the delivery of effective SuDS. This is impeding the delivery of the most cost-effective drainage techniques that have the potential to enhance the local environment.

Looking ahead, there needs to be far more integration of water policy – such as taking a catchment approach, where all measures are considered collectively. Water policy needs to be imbedded into infrastructure delivery as a fundamental principle; where developments incorporate water efficiency measures and ensure water discharges are clean and do not increase flood risk.

Summary of total costs/funding for flood defence projects (2017-2031)
Total Cost = £999,929,000
Total Funding = £984,017,000
Secured Funding = £1,311,000
Expected Funding = £982,706,000*
Funding Gap = £15,912,000

*Dependent on the scheme design delivering the benefits as outlined when the project is entered on this programme.

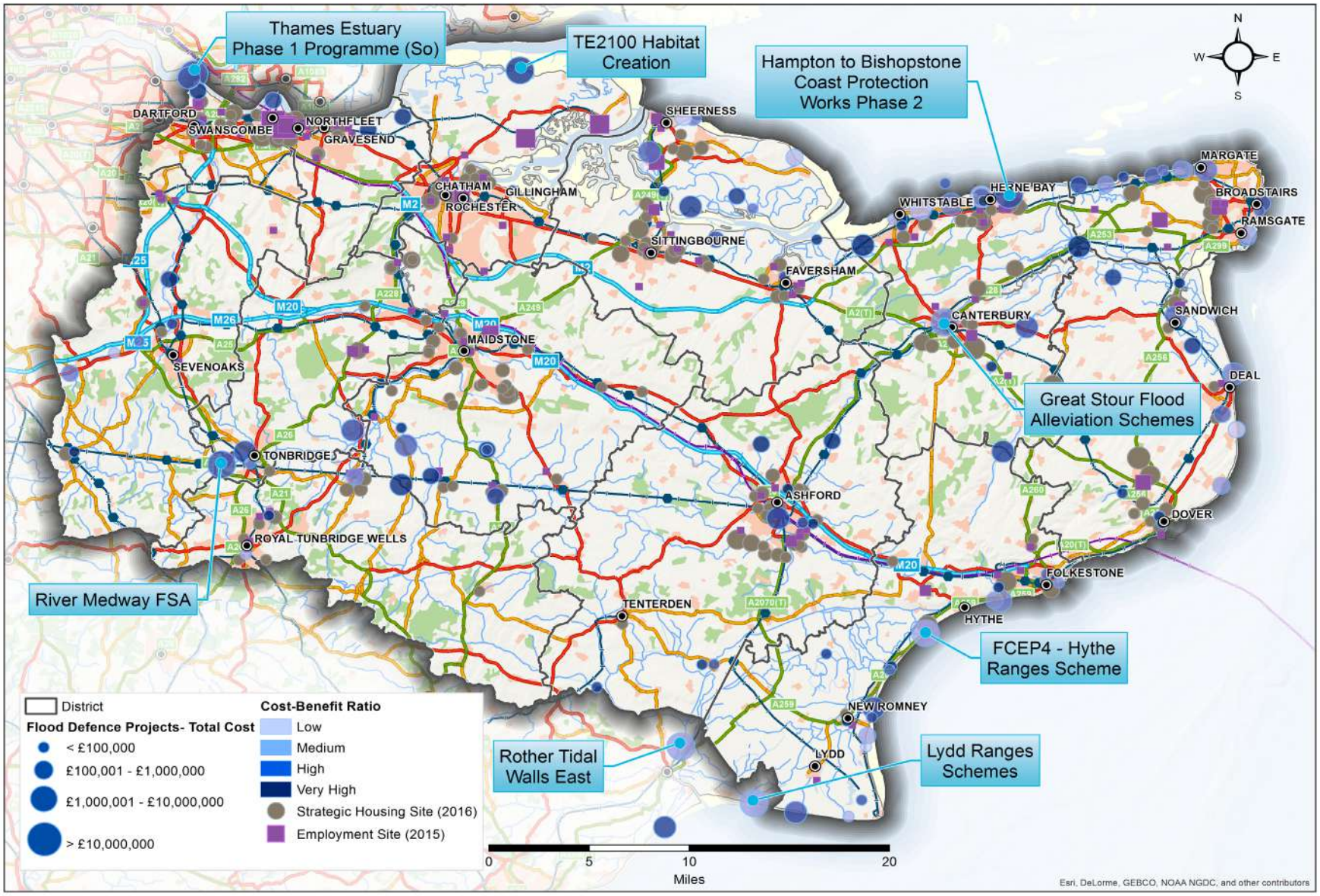

Figure 5.14: Major flood defence projects in Kent and Medway