

5 Analysis of alternatives

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5 Analysis of Alternatives

5.1 Introduction

It is a requirement of the Town and Country Planning (Environmental Impact Assessment) Regulations 1999 that an Environmental Statement includes:

'... an outline of the main alternatives studied by the developer ...'

'... an indication of the main reasons for this choice, taking into account the environmental effects'.

This chapter outlines the alternatives considered in terms of three scenarios:

- 1) Alternative sites for the development
- 2) Alternative uses for the site
- 3) Alternative schemes for the site

5.2 Alternative development sites

Alternative sites for the proposed development have not been considered by the applicants as they have a specific interest in, and control of, the Hayle Harbour site that does not extend beyond the application boundary.

The redevelopment of Hayle Harbour has been identified by the relevant planning authorities as a focus for environmental, social and economic regeneration for a considerable period of time. Penwith District Council, Hayle Town Council and the other planning bodies in the South West recognise the importance of redeveloping Hayle Harbour as a means of delivering social, economic and environmental regeneration to the town of Hayle. Development will also result in the Harbour's protected historic fabric being restored to better reflect its contribution to the World Heritage Site, and will provide flood protection for the town. Without the redevelopment of Hayle Harbour, these benefits will not be delivered: the 'do-nothing' alternative is therefore not considered to be a realistic option.

5.3 Alternative site uses

The Local Plan seeks to ensure a mixed use development proposal for the application site. No alternatives to a mixed use scheme have therefore been considered: the applicant has not assessed the benefits and disbenefits of a proposal focused solely on housing, employment or retail provision as these would clearly fail to deliver the balanced development that is necessary to enable the town to grow.

However, previous iterations of the current scheme, as outlined in Section 5.4.1 below, have considered alternative combinations and quantum of the mix.

5.4 Strategic alternatives considered

5.4.1 Previous schemes considered

Alternative schemes have been prepared over the past 30 years, and the current applicant, ING, has been involved with scheme development since 2000 when it was invited to become a potential joint venture partner to the then owners of the site, Rosshill Properties Ltd.

Those schemes have varied the quantum of development, the mix, the water-based proposals, land-based layout and site area quite considerably, with corresponding variation in the nature and extent of the impacts.

The following points outline some of the key alternatives assessed and the reasons for rejection:

- Infilling of part of Carnsew Pool and the former ship yard harbour to the west of South Quay – rejected because of the ecological impact on the SSSI and the negative impact on historical character and infrastructure
- Impoundment of the entire harbour – rejected because of the excessive speed of water flow through the proposed locking system, negative ecological impact and financial cost
- Built development on the Triangular Spit – rejected because of the ecological impact on the SSSI
- New road bridge across East Quay – rejected because it involved high cost, significant visual and environmental impact and the use of third party land which increased the risks to delivery
- Lower quantity of housing provision – rejected because of the impact on the financial viability of the scheme
- Use of land outside ING ownership – rejected because of potential impact on the ability to deliver the regeneration scheme
- Development of a retail outlet centre – rejected in the interests of providing a better balance of development incorporating a wider range of employment and homes to make the scheme more sustainable in the longer term
- Development exclusively on previously developed land – rejected because the limited development area of the Harbour itself restricted the scale of development to the extent that it was not financially viable. The option of increasing density on the brownfield land would not have been in keeping with the character of the historic harbour or the town as a whole. The only alternative was to develop an area of greenfield land

5.4.2 Iterations of current scheme

Consultation and consideration of alternatives through the evolution of the development options from 2000 to 2004 led to the scheme promoted by ING in 2005. This scheme incorporated a mixed use development including employment provision to meet SWRDA requirements, 877 dwellings, a road bridge from Merchant Curnow's Quay to North Quay, impoundment of Penpol Creek, excavation of the infilled area of water west of South Quay, avoidance of buildings on the Triangular Spit and some residential development on greenfield land.

CABE were invited to comment on this scheme, culminating in a letter of in-principle support but fundamental comments about the integration of the proposed development with the town, its historic and natural setting.

Following consultation with CABE a further iteration (the scheme currently proposed and the subject of the ES) was prepared, broadly based on the components on the previous alternative but developed to better integrate with the existing built areas, activities and communities of Hayle. The current scheme introduces a greater focus on the relationships between:

- South Quay, Harvey's Foundry and Penpol Terrace
- South Quay and North Quay, via East Quay
- East Quay, North Quay and Copperhouse
- North Quay and the Towars

The current proposal introduces greater benefits for the local people by enhancing routes and creating more interaction between the Harbour and the established areas of the town, so improving business prospects and opportunities. In short, it integrates Hayle Harbour as a part of the town.

5.5 Outline of main detailed alternatives considered in the scheme

5.5.1 South Quay

Alternative means of maximising both the prospects of success of the first phase of development and its ability to generate improved prospects for existing businesses in Foundry were considered. The proposal consolidates the first phase of development at the southern end of South Quay, aligning buildings and spaces in such a way as to connect across Carnsew Road and under the viaduct to Foundry. It introduces a pedestrian bridge across Penpol Creek to enable circulation around an extended town centre. Alternatives considered included more focus on the south western aspect of South Quay but that was considered to draw attention away from the existing centre of Foundry and Penpol Terrace. This would not necessarily have resulted in negative impacts on businesses in those areas, but would not have maximised benefits to them in a way that the current proposal aims to achieve.

5.5.2 North Quay

One of the proposals for North Quay envisaged a shared vehicle and pedestrian route along the quay side with basement parking below the waterside blocks. The current proposal has rejected the basement parking on grounds of cost and draws the waterside buildings closer to the waters edge making the waterside promenade exclusively for pedestrians, cyclists and emergency vehicles, enabling surface car parking to be incorporated along the street behind those blocks. Parking is perpendicular to the street, with adequate visibility splays; an arrangement that is considered to be acceptable because of the light volume of traffic using that street. The alternatives to perpendicular parking include parallel or diagonal parking (neither of which provides adequate capacity), or the reintroduction of basement parking which is prohibitively expensive.

On North Quay, an alternative consideration has been the use of the listed or historic buildings. One proposal planned for the demolition of the Octel buildings, but the current proposal plans for retention, conversion and extension of the two rendered buildings for residential use.

5.5.3 Riviere Fields

Consideration has been given to the need for development of the only Greenfield area of the proposed development, at Riviere Fields. This option emerged through previous options as a means of making the scheme more financially viable. It is considered that there are no viable alternatives to the principle of having to develop an area of Greenfield, in addition to the brownfield Harbour lands, because of the need to provide housing numbers sufficient to generate revenue to cross-subsidise the overall scheme.

The alternatives considered and rejected were:

- Increased density on the quays, but this would result in buildings being too high and dominated by surface car parking since basement parking is not cost effective
- Development of buildings on other previously developed land on the Harbour, namely the Triangular Spit or land at the west of North Quay, but this would involve unacceptable ecological impact
- The creation of additional land by infilling areas of the estuary, but this would similarly have unacceptable impacts in respect of the historic setting
- An alternative greenfield site was considered, to the north of Riviere Fields, but this was considered to be divorced from the existing areas of the town, would potentially result in additional private car movements and did not reflect the settlement pattern or topography and so was rejected

5.5.4 Hilltop

Alternative layouts for the housing on Hilltop, including more conventional cul-de-sac layout and a more dense configuration, were considered and were rejected in favour of the scattered layout that is more compatible with

the existing Towans development pattern and introduces diversity to the housing mix and character of the new development.

5.5.5 Highway access

Three main vehicular access points are proposed for Hayle Harbour:

- From Carnsew Road into South Quay
- From Merchant Curnow's Quay on a new road bridge on to North Quay
- Formalisation of an existing track connection to Phillack through Riviere Fields

Consideration has been given to alternatives for the latter two

Alternatives to new road bridge on to North Quay - A previous scheme included a new access road through East Quay, but this was rejected because it necessitated the use of land that is not in ING's ownership, drawing into question the ability to deliver the scheme. A further alternative was to make use of the former rail bridge, but its proximity to the sharp bend in the road at the northern end of Penpol Terrace meant it was not possible to provide a safe turning lane. A new road bridge was therefore proposed and alternatives for its design have been assessed, including raising it over the listed parapet of the old railway bridge. The selected option incorporates a low level bridge in order to minimise its visual impact.

Alternatives to access through Phillack - Access via Phillack has been proposed because the alternative, of routing all traffic through North Quay, did not provide adequate emergency access. The potential traffic impact on Phillack has been assessed as part of the Transport Assessment which concluded that impact would be minimal.

5.5.6 Parking

A number of alternative parking strategies have been considered. The proposal allows adequate parking to accommodate the needs of the new residents and business operators, in order to make the scheme viable. The alternative of reducing the level of parking provision by further increasing reliance on green travel solutions is not a viable alternative for the Hayle Harbour development scheme to deliver alone. The Area Action Plan will need to introduce strategic parking and green travel proposals for the town as a whole.

Alternative means of providing parking on site have been assessed, including basement parking, multi-storey parking and parking covering the whole of the Triangular Spit. Basement parking and multi-storey parking were minimised on grounds of cost/viability, with the exception of basement parking on South Quay and a small multi-storey car park in the former quarry on North Quay which have proved necessary to limit the parking on the Spit.

The option of parking on the entire Spit area was considered, but rejected on ecological grounds. Instead, parking on the Spit is minimised, using only the causeway and a small area on its eastern site where petalwort is least in evidence. This aspect of the proposal is unavoidable as there is insufficient capacity to accommodate any more parking to meet essential commercial needs on South Quay itself. Appropriate mitigation is proposed, as set out in the Ecology chapter of the ES.

5.5.7 Affordable housing and community facilities

The proposed development would provide considerable community benefit to Hayle. It would deliver economic growth and stability through the provision of a diverse range of jobs, flexible employment space, increased inward investment, increased expenditure on local businesses, opportunities for skills development, training and education.

It would not only provide protection, but restoration and enhancement of the historic structure of the Harbour. It would provide Hayle with a wider choice of housing (including 175 affordable units), shopping, leisure activities for existing residents and would expand the tourism offer. These benefits are integral to the scheme if it is designed well and implemented to a high standard.

The principal constraint to the delivery of this significant regeneration proposal is not environmental or technical, but financial. It is financial viability that has so far prevented the area's regeneration over the past 30 years.

The development costs (principally restoration of historic features, remediation, infrastructure provision and flood defence) and the relative land values demand that development be of a certain scale if it is to be viable and deliverable and, therefore, to realise the ambitions of Penwith DC, Cornwall CC, SWRDA and the GOSW.

This has been a significant driver of the scale, density, quality and nature of the proposed scheme but, notwithstanding that point, there remains a need for considerable amount of gap funding from SWRDA or other funding agencies to bring the scheme forward.

For these reasons, alternative mixes of development, to include more business space, a greater proportion of affordable housing or community facilities, are considered to hinder viability. The redevelopment would not proceed and the real benefits that would arise from the site's regeneration as set out above would be lost.

5.5.8 Sluicing

Chapter 13 sets out details of the proposed marine engineering elements of the scheme, and this includes the proposal to reinstate the sluicing regime within the harbour. Sluicing itself is explained in that chapter, but in summary it involves the controlled release of water from Copperhouse and Carnsew Pools to aid the scouring of sediments from the harbour to St Ives Bay.

The reinstatement of sluicing has been included as a scheme element for three principal reasons.

First, the principal function of the two pools was to facilitate sluicing, and so the re-introduction of the sluicing control structures is considered to be an important element in the context of historic restoration. It is not proposed to reinstate precise replicas of the original sluicing mechanisms. In the case of Copperhouse Pool the original structure has since been replaced by the EA's tidal sluice so this will be modified to provide the sluicing effect, subject to agreement with the EA over operational and liability issues. In the case of Carnsew Pool, new sluices will be installed in the existing tunnels (first sluice) housing. For the mitre gate (second sluice) channel a new structure is proposed to be constructed within the existing, but currently buried, channel walls. All three sluicing structures will be mechanised, and will not rely on manual operation, which occurred historically.

Second, the hydrodynamic modelling of the harbour has demonstrated that sluicing will result in a reduction of the encroachment of sediments into the harbour from St Ives Bay. Sluicing will therefore assist in the ongoing management of navigation within the harbour, and will reduce the frequency of maintenance dredging within the sediment traps, and within the wider marina and fishermen's harbour. This will provide economic benefits, as maintenance costs will be reduced due to less frequent dredging.

Third, there is a significant number of local residents with the memory and knowledge of sluicing within Hayle Harbour. This body of local opinion supports the findings of the hydrodynamic modelling, and reports significant evidence that, over time, sluicing was effective in keeping the navigation channel clear, and had some effect on managing the bar at the harbour entrance. Such an effect would help reduce the navigation risks between the harbour and St Ives Bay.

For these reasons, sluicing is proposed as an integral part of the regeneration scheme, and a scheme without sluicing has been discounted on these grounds.